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PART I.—ORIGINAL COMMUNICATIONS.

ARTICLE I.

Epidemic Erysipelas, as it occurred in Logansport (Indiana,) and its vicinity, in 1845. By G. N. Fitch, M.D., Professor of Institutes and Practice of Medicine, in "Rush Medical College," Chicago.

Considerable uniformity was observed in the manner of invasion. After a soreness of some superior portion of the neck, (internal or external,) of variable severity and duration, a rigor, in some cases slight, in others well marked, ushered in a more violent attack. The first local affection (of neck) was, in a majority of cases, internal; occupying the pharynx more particularly, but involving one or both tonsils, soft palate, and base of the tongue. There were, in these cases, more or less tumefaction of parts, increased vascularity, and redness of lining membranes, with difficulty and pain of swallowing; so great in some as to amount to almost total prohibition, the fluids regurgitating through the mouth or nose. In other cases there was manifest but little, if any, soreness of internal fauces; but tenderness, pain, and enlargement of cervical absorbents, sub-maxillary, and parotid gland of one side, or of sterno-mastoid muscle of one side in its upper third. In some few cases the rigor was the first evidence of disease; the local inflammation or pain not being developed until during it, or during the subsequent febrile excitement. The pulse, after the febrile reaction, became well established and rapid, 90 to 130, generally small, resisting and hard; variable, in those of same age and other apparent equal physical circum-

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stances, in its rapidity and fullness; but in every instance, more rapid and smaller, and I may add, more corded than in our ordinary miasmatic fevers. Surface hot, though, in some, bathed with perspiration in a few hours after the disappearance of rigor; perspiration occurring thus early, not operating, however, as a relief to the patient, nor lessening the intensity of fever or heat of the skin. If the pharyngeal inflammation was severe, the lower extremities evinced a tendency to coldness. Tongue yellowish-white or brown. Nausea and vomiting attended the commencement of many cases. Thirst not very considerable, except in those violent cases in which deglutition was much impeded. Such, as I have described, was the manner of attack and symptoms, in by far the greater proportion. *(See* (f) *of tabular statement annexed.)* These symptoms constituted the entire disease in many; it yielding to treatment without involving any other part, and without the supervention of any other symptoms or changes, except such as indicated the gradual restoration of health. A portion, by no means small compared with the aggregate, were not, however, so fortunate, and the disease had a still further, though varied course to run. The inflammation occupying the pharynx and contiguous parts, would travel through the posterior nares, make its appearance externally, in the form of decided *erysipelas*, upon one *ala nasae*, or on the septum or tip of the nose, then spreading with varied rapidity over the face, forehead, scalp, and creeping down the neck to the superior portion of the trunk, and one or both upper extremities. Or it would reach the surface by the ear along the eustachian tube, and thence spread in the same manner over more or less extent. (h) Its appearance upon the external nose was preceded by a sense of fullness and heaviness of the frontal region, with obstruction of the nasal fossæ, and in some instances, discharge of bloody sanies. So likewise, there occurred, previous to its exhibition upon the external ear, deafness and pain in one or both ears, with, perhaps, the same sanious discharge. These symptoms, pain, fullness, and discharge from the parts, were not, in every instance, followed by external erysipelas. In some few cases the disease would be first visible, externally, at an angle of the mouth. Where the primary attack was in the cervical lymphatics, or parotid gland, or sterno-mastoid, the erysipelas of integuments usually commenced immedi-

ately over or near the part first affected. When it appeared externally, the inflammation was marked by vivid redness, considerable tumefaction, tenderness to touch, and hardness. Vesication was not constantly present; it was usually found in those cases where the tumefaction was greatest. When the palpabræ were reached in the progress of the inflammation, the swelling was so great as to close the eyes; the conjunctiva was rarely, if ever, involved.

Soreness of the neck was, in other instances, followed by erysipelas of integuments of superior, (i) or inferior (k) extremities, commencing usually on a finger, or toe; or by enlargement and pain of axillary glands, with, or without erysipelas of integuments in vicinity (l). In any situation where it existed, as the inflammation of the integuments spread, the tenderness to touch and hardness of parts previously traversed, gradually gave way to an uneasy tingling or itching sensation, and became œdematous (pitting) from effusion into cellular membranes beneath, and in the interstices of muscles. There was, at the same time, a diminution of redness, and desquamation commenced. In unfavorable cases, although desquamation in some degree, might commence, the original hardness and tenderness remained; the redness became livid—pulse increased in frequency, losing its hardness, and becoming thread-like, almost imperceptible; surface cool, and cold extremities, muttering delirium, or incoherency, or coma preceded a fatal result.

Acute Laryngitis supervened upon the primary attack in some, (m) constituting a formidable and distressing complication. The respiration, particularly inspiration, was long, laborious, croupy, with livid lips and face, starting eye-balls, and intense feeling of immediate suffocation, which too often quickly followed. Secondary inflammation of other organs or tissues, likewise followed the primary attack of neck or fauces, after an indeterminate period. Thus the bronchiæ (p) or pleura, (n) became the seat of inflammatory action. In females who had menstruated, peritonitis was of not uncommon occurrence, (s) independent of any condition of pregnancy. The dermoid tissue of vulva and contiguous parts were sometimes (t) seized with erysipelas. The pulse was varied little if any, by secondary inflammation of any organ or membrane; retaining its characteristic rapidity, smallness and hardness. In

every instance of the supervention of secondary symptoms, whether erysipelas of integuments, or inflammation of other parts, the original inflammation of fauces or neck, with its accompaniments, pain and tumefaction gradually disappeared. The subsidence of the first local symptoms never preceded, or was simultaneous with the secondary attack, so as to admit the supposition of metastasis. In some few cases the primary attack was not of the fauces or neck, but of the integuments of an extremity. Here, however, the symptom which can, I think, with propriety, be looked upon as characteristic of the disease, (soreness of the neck or fauces) was found present at some period of their progress.

Some attacks were, so far as could be ascertained, attributable solely to epidemic influence; the patients not having had any intercourse direct, or otherwise, previously, with any of the diseased. I do not entertain a doubt, however, of its contagious nature. By far the greater number of severe cases were traceable directly to this origin, and in turn communicated the disease to others; numerous examples, in proof of this, could be adduced. I shall be compelled, in an article condensed, as this is designed, to content myself with a few, well marked, —though not more unequivocal than many others. Two gentlemen, one resident twenty, and the other five miles distant, visited the house of a friend, four of whose family were confined with the disease in some stage. There had been no erysipelas in their respective neighborhoods;—none indeed nearer than at this point. They remained twelve or sixteen hours. In three days after their return both were seized with the disease. The attack of the one residing nearest proved mild, and it was not propagated to any extent from him. The other died; previously communicating it to almost every member of his father's large family;—one other of whom died also,—and from whom it spread over a considerable region, embracing a town of a thousand inhabitants.

A venerable lady 60 years old, residing distant ten miles in a sparsely settled vicinity, came into town to attend a sick married daughter, whose children had the erysipelas. She went home with it, or was seized immediately after her return. She had two other daughters, and three sons, married and living within one to three miles of her, and of each other;—yet so great was the terror of the disease from exaggerated

reports of its fatality in town, that none evinced a willingness to become her attendant. Her aged husband was therefore nearly her sole one, until he was prostrate with the same. The elder daughter then became nurse for both: she was seized and died. Her husband, who had been at her bedside during her illness, was next attacked. The fear of the disease was naturally increased by these rapidly consecutive cases; and it was with great difficulty any could be found sufficiently courageous to perform the last offices for the dead, or administer to the wants of the sick. A sister-in-law of the deceased heroically volunteered her services; was soon taken and communicated it to her husband.

A nurse in attendance upon a family sick with it, was attacked went to her mother's, five miles distant, and spread it through her family.

The mother of a large family, four miles from town, washed bed-clothes and wearing apparel belonging to the family of a relative in town, among whom, then and previously, the disease was. She had a slight wound—a mere scratch, on the end of one finger, which had escaped her memory:—erysipelas attacked it, and spread over the arm, face, and scalp. During her illness, her family (five) were taken. The case of this mother is one of those, briefly alluded to before, in whom the primary attack was not of the neck or fauces; one of those parts, however, becoming affected in its farther progress. In all this (g) class of cases the disease was clearly contracted by inoculation. It is unnecessary to multiply cases in proof of its contagiousness. A sufficient number have been already mentioned to show the nature of the testimony upon which the entire absence of all "doubt" upon the subject, heretofore expressed, was based. I had seen the disease before; but not under circumstances to satisfy me of its contagiousness. When it first appeared here, therefore, my prejudices were strongly in favor of the negative side of the question. They were abandoned, only, after reiterated proof, afforded by observation, of their erroneousness. Some predisposition is, unquestionably, necessary for its contraction. Of those exposed to the contagion, only about one in two, or two and a half, appeared to be susceptible of its influence. In what the predisposition consists, we are, and probably, ever will remain, ignorant. Of the cases in the annexed statement, occurring in my practice,

only a small number were under 12 years (a) of age. It must not hence be inferred, that childhood, and infancy operated as an immunity against the disease—only that the greater number had it very mild;—so mild, that no notes were taken of their cases. Of those above that age, more than half were females. (r) An obvious reason is presented for this, without supposing any peculiar predisposition in the sex, in the fact of their services being more frequently called into requisition in the capacity of nurses. How far having had it may protect against several attacks, I am not prepared, fully, to assert. From the result of very many second exposures, under apparently favorable circumstances for its contraction, my opinion is *strongly* biased in favor of one attack granting future exemption.

The sheet anchor, in treating it, is bleeding. This remedial agent was first resorted to cautiously, and with close attention to its effects. As the cases multiplied, thereby enlarging the field for observation and comparison of different modes of treatment, from its relatively much greater success, it was used boldly and freely. No remedy was as decidedly successful in so great number of cases,—no other remedy so frequently checked the disease—strangled it in its incipiency, or at least so modified its symptoms, as to render its subsequent course comparatively mild, when had recourse to at the proper time, and to such extent as the individual case demanded. The time for the lancet, was as soon as reaction, subsequent to the rigor, was fairly established; and the sooner thereafter, *ceteris paribus*, the greater, and more permanent, the curative impression. True, it was often required at uncertain subsequent periods, where it had, as well as where it had not been adopted early, in consequence of the supervention of secondary inflammation of some organ or tissue. Where thus indicated, the quantity was governed, as usual, by importance of the part seized, severity of symptoms, and relief obtained. After diminution of hardness of pulse, and increase of its frequency, with coolness of surface, and coldness of extremities, even when accompanied with delirium, or approach to coma, it became a doubtful remedy, although it may not have been previously used. Local bleedings were the safe depletory means here, if any were admissible. The benefit derivable from bleeding, was proportioned in an increase ratio, to the length of time that had elapsed since developement of the disease;

and, except in those cases where demanded by secondary inflammation of vital tissues, it became doubtful, in a ratio directly proportioned to same lapse of time. I have bled beneficially as late as the fourteenth day; and have seen injury result as early as the fifth; and other cases where it was clearly inadmissible on the third. It will be seen that, of the cases between 12 and 21 (x) not bled, all recovered. They were mild throughout their progress, and in part, not seen until the period at which bleeding would be expected to beneficially break into the diseased train of action, had passed. So with those of greater age, not bled, or where original debility of habit, or advanced life forbade the remedy. Next to bleeding in importance, in the commencement, I rank emetics. Neither these nor bleeding should be resorted to in all cases, by routine or empirically, without, that is, the presence of symptoms which would afford satisfactory reasons for their use. Emetics were found particularly applicable to those cases accompanied with nausea, with or without vomiting, and with a yellowish-white tongue. Their repetition the second or third time, was demanded when there was difficult deglutition from viscid mucus in the inflamed pharynx; likewise when the larynx became the seat of inflammation. Under no other circumstances was their administration in the advanced stages followed by any compensating mitigation of symptoms. Cathartics were necessary throughout its entire course, but violent purging to be deprecated. I preferred, as a first cathartic, sub-chloride mercury, grs. 10 to 20, followed, in four to six hours, by ol. ricini, or sulph. magnesiæ. The repetition of sub-chloride was governed by appearance of the tongue and discharges. Care, however, should be taken, when the fauces were the seat of the local disease not to induce its constitutional effects. Ptyalism was productive of no good, except where there was existent secondary inflammation of peritoneum, bronchiæ, or lungs. Then its administration in alterative doses was decidedly indicated; these inflammations, particularly the first, yielding only to the combined influence of the lancet and mercurials, with such *adjuvants* as were called for by the individual case, or are most in vogue in acute diseases of these parts.

The mercurial, in peritonitis more especially, was usually combined with an opiate, where the lancet had been premised.

In the affection purely of the fauces, alterative mercurials were mischievous, and of doubtful efficacy in any other than the inflammatory complications above mentioned. When the inflammation was of the pharynx and fauces, counter irritants were applied to the neck—in milder cases, stimulating liniment; in the more severe, blisters. Various collutories were tried. All, however after a fair trial, and experience of their inefficiency, were discontinued, except dilute tinct. iodine.

Tinct. Iodine, ʒj
Proof Spirit, ʒvi

With this the patient was directed to gargle three to five times daily. In the urgent cases, attended with violent pyrexia, great pain, and difficult deglutition, the fauces were scarified, and bleeding encouraged, by gargles of warm water. The best means of discussing enlargement of the lymphatics and parotids and reducing the accompanying inflammation, was strong tinct. iodine, applied every four hours, by means of gentle friction, or of a piece of flannel moistened with it, and worn upon the neck as long as it could be borne, and renewed after the effect had partially subsided. In erysipelas of integuments resort was had to every plan of treatment offering a rational expectation of checking its progress and moderating symptoms. I speak more particularly of local,—the general treatment was that already described, modified by duration and severity of fever. Sol. nit. argent., tinct. iodine, oint. iodine, mercurial oint. and numerous other topical applications were made to inflamed surface in the first stage of the inflammation, that is, before effusion, the part being yet hard and painful. Certainly no good effect resulted, in any case, and in some the reverse. It was judged that emollient cataplasms would be more successful. They were tried, and found even more objectionable than the first named local means. Their inner surface dried, and became glued to the inflamed cuticle. When an effort was made to take them off for renewal, or any other purpose, dry crusts were found tenaciously adherent, which the attendants would either tear off with force and increase the inflammation and pain thereby; or leave to act as a constant local irritant upon an inflamed surface, and produce, what was actually the result in some cases, superficial sloughing. Mischief growing out of applications of this kind was still more apparent where there were vesications. The

vesicles breaking, their contents would form, with the cataplasm, hard crusts which could not be removed without the application of considerable force. The only instances of gangrene of integuments to any extent, within my knowledge, were clearly attributable to the neglected presence of these crusts consequent upon the use of cataplasms as a domestic remedy, or in the hands of empirics. The only topical remedy, the success of which warranted its use in every case, in the phlegmonous stage, was a liniment of ol. lini. and aqua calcis, equal parts. This, when applied with a soft cloth or feathered end of a quill, allayed the burning, and communicated a grateful cooling sensation, not obtained by other means. To check the progress of the inflammation, nit. argent, in substance was used, by applying it to the contiguous sound skin, in such manner as to surround the diseased part, at least in the direction of its advance. In no instance did it fulfil the indication desired, in even a small degree; although applied freely, and frequently. The disease, in some instances, it is true, did not spread far beyond the cauterized line; but in such it was obvious, from its appearance, and the concomitant symptoms, that the inflammatory extension was nearly exhausted, and about reaching a spontaneous limitation.

I saw no reason for believing that the inflammation of integuments, while recent, and in full vigor, was checked in its onward advance, for a limited time, much less stopped, by this caustic. Blisters were applied in the manner usually directed, viz: by surrounding the diseased surface with a *cordon* of various strips, spread with the vesicating plaster, leaving a part only of each strip in contact with the sound skin. The effort to thus impede its march was soon ascertained to be nugatory. Before vesication, or indeed any considerable irritation, of the surface ensued, erysipelas was found occupying the integuments beyond the limits thus vainly attempted to assign to it. I, therefore, applied the strips sufficiently in advance to procure full vesication before the disease reached the surface covered by them,—say one half to one inch. In this manner, a complete stop was put to its farther progress; or, if it extended beyond, it was less violent; wanting the vivid redness, and tumefaction which characterized it within the blistered circumference. In the œdematous stage (after pitting) it became important to procure the absorption,

or discharge of effused serum. For hastening the first process nothing equalled the topical application of tinct. iodine dilute, *(tinct. iodine* 3 ij, *proof spirit* 3 ij *to* 3 jv*)*. When its use every four hours, for 24 to 48 hours, failed to procure perceptible reduction of tumefaction; or when the latter was very considerable, it was not exclusively relied upon. Under such circumstances free incisions were made; or, the situation of the part forbidding that, punctures with a lancet. The use of these means early in the œdematous stage, prevented suppuration. When they were neglected, the effused serum, either from tension of its quantity, or its irritating quality, produced suppurative action,—broke down the cellular membrane—became extensively diffused in the interstices of muscles, and at last made its way externally through an ulcerated or excised opening, mingled with pus, and shreds of sphacelated cellular membrane. I am unwilling to admit the possibility of the occurrence of gangrene as a termination, unless from neglect, in the patient, of early seeking proper medical aid; or criminal mismanagement upon the part of the physician in not checking by proper treatment, the first violence of local inflammation, perhaps aggravating it by his topical applications; or in using no precautions against the effects reasonably expected to result from extensive extravasation of serum. Suppuration occasionally followed a glandular inflammation in the axilla, groin or mammæ, involving cellular membrane to some extent, but unaccompanied with erysipelas of superincumbent integuments. In such cases the secretion of pus was not preceded by any œdematous stage, and a circumscribed abscess was formed. If an extremity (hand or foot) was the seat of erysipelatous inflammation, permanent flexion, or extension of more or less of the digital tendons was a usual result; and this equally when the absorption of the serous extravasation was aided only by iodine, and when its discharge was promoted by punctures. Such contraction and partial rigidity were not, as has been supposed by many, caused by a breaking down of cellular membranes surrounding, and consequent agglutination of all parts, tendons, sheath, periostium, muscles and integuments. That it was not, was manifest from the part, (finger) enjoying some degree of mobility, during which it was evident the tendon, though shortened, moved within its theca, unconnected with skin, or bone. That it was not, was proved,

moreover, by the result of several subcutaneous divisions of the affected tendons, after which the finger soon resumed very nearly its natural position. It is proper to remark that during the phlegmonous stage, the blisters were dressed with the same liniment, (ol. lini and aqua calcis) applied to the diseased surface; after œdema, while iodine was applied to the latter, the former were covered with mild blue ointment.

It remains only to notice that formidable variety of this disease,—Puerperal Peritonitis. It is unnecessary at this day to adduce any argument for establishing the identity of this disease, when epidemic, with erysipelas. Every intelligent physician admits it; and any attempt to so elucidate the matter as to convince the benighted understanding of him who does not, would be "casting pearls before swine." Another matter, however, connected with it is not so well understood, viz: its treatment. At least, if no more successful plan of treatment is ever to be adopted than the one now usually pursued, but a gloomy prospect is presented to those liable to its attacks. Its fatality probably exceeds that of any other acutely inflammatory disease. In Caledonia, Vt., of 30 cases, but one recovered. Twenty died in Bath, N. H., a town of only 1600 inhabitants, and here we infer that the 20 comprised all attacked, although the number of the latter is not stated. (*Vide* Amer. Jour., Jan., '44.) This, or very similar fatality, has attended it everywhere. It will be perceived that of the cases in the annexed table, nearly half died; and this notwithstanding, from the known prevalence of erysipelas, the peritonitis was expected, carefully watched for, and promptly met. Yet the most decisive treatment could not prevent the death of a large proportion. No treatment, hitherto practiced, has been attended with such success, as to encourage us much in its persistance; but of all *known* remedies, in the onset, none, in my estimation, can compare with bleeding. I say "*in the onset,*" for if that golden moment is permitted to pass, the aid of the lancet had better not be invoked. Indeed, with my late experience, if I had not seen the patient, or had neglected to bleed in the *first few hours* after the rigor, in the more acute cases, I would dismiss the most remote idea of doing it at all. It will only hasten her tomb-bound journey. The severity of attack and danger are proportioned to the shortness of the period that elapses after accouchment before

the rigor. If it makes its appearance in five hours, the onslaught is so violent, that only an imperfect reaction for a short time may follow; the symptoms marking the rapid approach of the last stage—collapse. In most cases a longer time—two or three days—in some cases even more, may supervene before attack. Then a longer period is presented during which bleeding may be required, although then the earlier a vein is opened, the greater the probability of recovery. I followed bleeding with cal. and opium, (gr. 1 to 2 of latter, and gr. 10 to 20 of former,) every four hours. After fourth or fifth dose, oil, if the bowels were not previously moved. Usually, it is true, a bland tepid enema was administered much earlier. The application of mercurial ointment with turpentine to the abdominal parieties, was directed all the time. It will be perceived that every one recovering was ptyalised. Cal. and opium, however, unless preceded by bleeding, did not control the disease, though given as above, or even more freely and frequently for two days or more. It appeared impossible to induce ptyalism without premising bleeding. The system had first to be *reduced* to a mercurial standard. Finding evidence of the constitutional effects of the mercurial an invariable precursor of an amelioration of all urgent symptoms, the disease appearing to give way before it, I was led to hope, that the administration of the same remedy in alterative doses, pushed so far as to give upon the gums mild, but unequivocal manifestations of its effect before accouchment, if kept up gently until that event, might protect against these peritoneal and uterine attacks. Accordingly, mass hydrarg. in grs. 2 to grs. 3 in pills, twice daily, conjoined in some instances with ung. hydrarg. ℥i, applied to abdomen every evening with friction, was recommended to several, at periods varying from two to four weeks previous to the expected full term of utero-gestation. In four cases in which the mercurial effect was manifest at the time of delivery, no symptom of peritonitis presented itself. One had the disease quite mildly. The pill was continued until the third or fourth day after accouchment. These few cases (five being all in which this plan was adopted,) do not afford sufficient ground for confident reliance upon the prophylactic power of the remedy. They create a supposition—encourage a *hope*—that it possesses such power; and fortunate, truly, for mothers, will it be if it does. Other

and more extended trials will, I trust, be made by the profession as opportunities present, which will soon be decisive of the matter. In the four cases in the following table, laboring under erysipelas at the time of accouchment, two had it in the integuments, two in the fauces. In all, it was immediately checked upon supervention of peritonitis, requiring no further treatment and gradually disappearing. In no instance did a patient, who had erysipelas at any period during pregnancy, and recovered entirely before confinement, have peritonitis after that event.

The foregoing description of "epidemic erysipelas," is drawn entirely from personal observation; and the treatment such as that same observation and experience taught, in my estimation, to be requisite. For any opinions expressed I must hold myself solely responsible, as I have endeavored to be governed by the dictates of my own judgement, unbiased by any speculative notions of any theoretical or alleged therapeutical deductions of any practical writer.

SUMMARY.

Entire number of cases of which I took notes, in the counties of Cass, Fulton and Carroll. - -	213
(a) Between 6 months and 12 years of age, -	19
" 12 and 21 " " -	41
" 21 " 31 " " -	52
" 31 " 40 " " -	58
40 and over, -	43
(f) The primary attack was in fauces, tonsils, sterno-mastoid muscle or cervical glands in - -	182
(g) The disease clearly contracted by inoculation in some other part, (finger usually) in - - -	9
(h) Primary affection of fauces, &c. (f) was followed by erysipelas of face, scalp, and neck in - -	49
(i) By the same affection of integuments of arm and hand in - - - - -	10
(k) By same in one or both lower extremities in	6
(l) By inflammation of axillary glands "with or without erysipelas of integuments in vicinity," in -	7
(m) By Laryngites in (6 males, 2 females, fatal in 6)	8
(n) By pleuntis in - - - -	2
(o) " meningitis in - - - -	1

(p) By bronchitis alone, or complicated with pneumonia, in - - - - - - 11

(q) By "black tongue" in - - - - 2

(r) Of the entire number above the age of 12, there was of females - - - - - - 102

(s) Of these the primary attack (f) was followed by peritonitis, independent of any condition of pregnancy, but in those who menstruated, in - - - 15

(t) By secondary erysipelas of vulva and contagious parts, in - - - - - - 5

By same of mamæ, in - - - 1

Of those under 12 years of age there was bled, (a bad case, but recovered.) - - - - 1

Under that age (12) there died not bled. - 2

Between the age of 12 and 21 there were bled on 1st day, 17

of whom died 0

" " " " " were bled on 2d " 12

of whom died 0

" " " " were bled on 3d day and after 4

of whom died 1

Of the remaining 8 not bled, none died.

Between 21 and 31 there were bled on 1st day 21

of whom died 0

" " " " " 2d day 15

of whom died 1

" " " " " 3d day and after 9

of whom died 2

Of remaining 7 not bled, there died - - 2

Between 31 and 40 there were bled on 1st day 19

of whom died 0

" " " " " 2d day 15

of whom died 2

" " " " " 3d day and after 13

of whom died 2

Of the remaining 11 not bled, there died - - 2

Over 40 there were bled on 1st day 11, of whom died 1

" " " " 2d day 14, " " 2

Of the remaining 18 not bled, there died - - 9

PUERPERAL PERITONITIS.

Cases, - - - - - - - - 20

Of these, there had erysipelas at time of accouchment				4,	of whom died	2
Disease (peritonitis) forming before accouchment				1		
Attacked on 1st day after—				2,	of whom died	2
"	2d	"	"	6,	" "	3
"	3d	"	"	6,	" "	2
"	7th	"	"	1,		—
						9
Of all there were bled in from 3 to 12 hours after attack				12,	of whom died	3
Bled on 2d day and subsequently				6,	" "	4
Not bled	-	-	-	2,	" "	2
						—
						9

Every one who recovered was mercuralized.

In two of these cases the infant was attacked with erysipelas of pudenda and neighboring parts on third day after birth, and died. Three were still born.

ARTICLE II.

An Essay on the Therapeutic Virtues of the Euonymus Atropurpureus, or Wahoo. Written for the Degree of Doctor of Medicine in the "Rush Medical College." By ELLWOOD ANDREW, of Attica, Indiana. Presented Feb. 2, 1846.

EUONYMUS ATROPURPUREUS.

Spindle Tree.

Burning Bush.

Wahoo. Radicis cortex. The bark of the root.

Class, Petandria. Order, Monogynia.

Flowers axilate in small open umbels, four equal stamens, anthers two lobed, one pistil, four equal petals, calyx four equal sepals; the petals and sepals same color, dark red. Berries of a bright scarlet color, fleshy, four lobed, at right angles; each lobe containing one seed in capsule. Branches opposite and four angled. Leaves opposite on short foot stalks, ovate acuminate, veined and finely serrated, color, dark green on the upper surface, lighter beneath.

The wahoo is a beautiful and ornamental shrub, attaining from six to twelve feet in height, and may be found through-

out the Northern and Middle, and perhaps over the whole of the United States. It delights in a rich and loose soil; and is generally found on the margins of running streams, on hill sides, &c. It flowers in June, and the fruit matures in September.

This shrub is liable to be mistaken for the young grey ash, which it much resembles in its general appearance. It may, however, be easily distinguished in autumn, by the fruit remaining on the tree long after the surrounding foliage has disappeared. This shrub is covered with a thin, and for the most part, smooth epidermis, which is of a dark ash color, gradually becoming green, however, on the younger branches. The roots, which are small and numerous, are covered with a bark of a pale cineritious color. The taste of the bark of the root is a pleasant bitter, slightly pungent. It possesses a faint odor. Both odor and taste much resemble that of Ipecacuanha. The bark is tough and difficult to pulverise. Water and alcohol extract its virtues. There are diversities of opinion among botanists in reference to the proper botanical name of the wahoo. Some regard it to be the *ulmus alata*, which also bears the specific name of wahoo. I am satisfied, however, that it does not belong to that family, and I have chosen, in accordance with the views of Dr. Kennicott, and other able botanists, whom I have consulted, to consider it as the E. Atropurpureus in preference to the E. Americanus, as it answers more nearly to the description of the former than the latter variety.

When this substance was first known as a remedy, it is impossible at this time to determine. It has, however, long enjoyed a reputation as a valuable expectorant in pulmonary diseases. For this purpose a variety of preparations of it have appeared from time to time, usually in the form of syrups.

As a Tonic, it enters largely into the various popular compounds, known as bitters, and as such, used in various conditions of the system; such for example, as rheumatism, indigestion, want of appetite, &c., and is extensively used during convalescence from autumnal intermittents. It is frequently exhibited in the form of decoction, as a diaphoretic and diuretic in obstruction of the urinary organs. It is an exceedingly popular remedy as a cathartic in a great number of diseases, where a remedy of this class is indicated. In autumnal fevers

this substance is frequently administered by the country people, without regard to the form of fever or the stage of the disease, and generally with success, at least in such cases as may be cured by active cathartics.

The frequent exhibition of this substance by the community, and the benefits that uniformly appeared to result from its use, have gradually brought it to the notice of physicians, many of whom have been induced to prescribe it in various forms of disease. From the opinion of a number of physicians, who are in the habit of prescribing the wahoo, no doubt can be entertained of its virtues as a remedy, and of its claims to a place in the Materia Medica.

The physiological action of the wahoo appears to be twofold, which depends upon its tonic and cathartic properties. As a tonic, its action resembles that of the vegetable tonics in general; producing, when administered in small doses, an increased cutaneous and pulmonary secretion, and giving tone and vigor to the system generally, without manifesting any marked stimulating properties. When thus administered, it excites, in a peculiar manner, the secretion from the urinary organs. There are few remedies that possess this quality in a higher degree. Should the dose be increased beyond what is requisite to produce a diuretic effect, it acts as a mild cathartic or laxative, leaving the bowels in a soluble condition.

In no instance, however, is its action more distinctly manifested than when given in full doses. When thus administered, it acts as a powerful hydrogogue cathartic, producing copious fluid evacuations, which frequently continue for twenty-four or thirty-six hours after its administration. Notwithstanding its powerful hydrogogue effects, it does not produce any drastic effects; its action being attended with little or no pain. Another peculiarity of this substance is, that when its use is continued for a length of time, it does not, like most remedies of this class, lose its hydrogogue effects. On the contrary, it appears to be as prompt and efficient in its action as when first administered.

From the foregoing remarks, it will be seen that the wahoo possesses medical virtues of no ordinary character, and that it strongly recommends itself to the attention of the profession. From the brief views that have been given of its mode of action upon the system, it will not be difficult to determine when

its administration may be indicated, or when it may be prescribed with advantage.

In plethoric habits, when there is a determination of blood to the head, the wahoo may be given in cathartic doses, and will be found to dispel all the unpleasant symptoms.

The catarrhal affections of the air passages, which are of so frequent occurrence in our climate, may frequently be promptly relieved by the free use of this remedy. In chronic affections of the lungs, attended with cough, this article has long been used and is frequently prescribed with advantage.

A number of instances have fallen under my own observation, where this remedy has been used in chronic coughs from various causes, used with more benefit than any other In these cases it would seem to possess some specific action over the mucous membrane of the lungs; throwing off the disease by promoting a healthy secretion from that surface.

It has been found of much service in the treatment of various forms of disease, depending on a miasmatic influence. In rheumatic inflammations, depending upon this cause, it may be given with decided advantage. Here, as well as in all other cases, where there is much inflammatory excitement, bloodletting, either general or local, should be premised.

Of the multifarious forms of disease in which this substance has been administered, there are none in which its beneficial effects are more strikingly exhibited, than in dropsical effusions. In cases of this kind, where the amount of fluid is so enormous or the effusion is so rapid, that remedies ordinarily employed, are wholly inadequate to the task of removal, or inadmissable from the great debility they produce, or from their continued use become inert, the wahoo would seem to be particularly indicated; filling as far as it is possible for one remedy to do, all the indications.

From the testimony of a number of physicians, who have had occasion to use this article in these as well as other forms of disease, the following remarks from Drs. Evans and Buell, of Indiana, are well worthy of our attention, combining, as they do, in a few words the opinion of these gentlemen, who have had much experience in its use. Dr. Buell remarks, after speaking of its tonic and cathartic virtues, "in witnessing these properties of the wahoo, I did not hesitate to prescribe it in the various forms of dropsy that came under my

notice, in conjunction with such other remedies as each particular case seemed to require, and I have had much reason to be pleased with its effects, and at no time to regret its administration." He considers it particularly indicated in effusions in the cellular membranes, and further remarks, "that in these cases, it will rarely disappoint our most sanguine expectations." In hydro-thorax and ascites, he cannot speak with as much confidence, having failed to perform a *cure* in both these forms of disease, but as they are frequently dependant upon a lesion of some important organ, in which all other remedies fail in a cure, he therefore does not consider them as a test of the therapeutic virtues of the wahoo. He only reports one case in which this article was administered without *any* benefit, and this was a case of anasarca, resulting as the sequelæ of scarletina, which had been long neglected. The presence of febrile symptoms, he does not deem an objection to the use of this article in cathartic doses, more particularly should depletion first be employed. He is confirmed in this opinion by the fact before alluded to, that it is frequently used by the country people, as a domestic remedy in the cure of autumnal fevers, and generally with the happiest results in those cases that demand active purging. The views of Dr. Evans strongly corroborate the remarks of Dr. Buell. Dr. Evans remarks, "from the observations that he has been enabled to make, he is decidedly in favor of its use in most cases of dropsy, where an evacuant is indicated." In speaking of its physiological action, he continues, "one drachm of the bark of the root, gathered in the fall or winter, (which is the proper time) infused in six ounces of water, will, if given at four or six equal doses every two hours, have a decided diuretic effect, unless it should operate on the bowels. In doses of twice or thrice this amount, it acts as an energetic hydrogogue cathartic, producing a number of evacuations. It is a remarkable property of this medicine, that the frequent exhibition of it as a cathartic, does not, as is the case with most, if not all the remedies of this class, destroy its hydrogogue effects. I have given it every other day for two weeks, and the last dose seemed to produce the same effects as the first." He also speaks of its tonic properties, "From these properties, I regard it as one of the very best remedies that can be given in dropsies where the system is much prostrated,

and the accumulation of the watery fluids rapid. In one case of ascites and hydrops pericardii, with general anasarca of several months standing, which evidently was attended with a miasmatic influence, originating in an attack of remittent fever, and attended with enlargement of the spleen, I had reason to attribute the cure to the effects of wahoo, given every other day in cathartic doses, in conjunction with quinine and the application of blisters over the region of the spleen."

Another and severe case of ascites, hydro thorax and general anasarca, which occurred in an individual of a chlorotic habit, came under the notice of Dr. Hays, in which the specific action of this remedy in this form of disease, was most strikingly exhibited. The patient, a young lady in whom the catamenia had never been instituted, had long been afflicted with rheumatic inflammation of almost the whole fibrous tissue of the body, which gave way to, or rather was the cause of the dropsical effusion. The system was much prostrated, the accumulation of fluids rapid, and so abundant as to seriously impede respiration; causing frequent fits of suffocation, which threatened the life of the patient. In this case the wahoo was the only remedy that appeared sufficiently powerful for the reremoval of the fluids, without at the same time impairing the strength of the patient, and notwithstanding the patient died, as might have been expected, no doubt could be entertained that life had been prolonged and rendered more endurable by the free use of this remedy; the dropsical effusions having been entirely removed long before death, and the patient dying from other causes. It has been seen elsewhere, that this article is particularly adapted to dropsical effusions of the cellular membranes. There are a great number of diseases, which produce serous effusions into this tissue of the body; in a majority of cases, perhaps, the effusion is produced from the same cause, namely: that of atony or debility of the system. A disease in which this infiltration frequently obtains, is scarlatina. Again, in badly treated cases of autumnal fevers, or in cases that have not been treated at all, we not unfrequently find in addition to the anasarca which is present, a derangement of the bowels, want of appetite, &c. In all these cases a careful examination into the history and cause of the disease, and a just discrimination in the selection of remedies, will at once determine whether this remedy is applicable to

the case, and in many cases it will doubtless prove of much service.

The foregoing are a few of the many cases, that might be adduced, where the wahoo has been used in dropsical effusions. Its value, as a remedy in these cases, appears to depend on its power of exciting the secretions from the alimentary canal; and through this means causing the rapid absorption of fluids from other parts of the body. In many cases of serous effusions, the removal of the fluids is the only indication to be fulfilled. In such cases this remedy may be considered of primary importance. Other cases again occur, in which the dropsy is only a symptom of the disease, the effusion depending upon a lesion of some organ, over which this remedy has no control. In such cases this article should be considered only as an adjuvant, and be used in conjunction with such other remedies as the primary disease might seem to demand. Cases indeed frequently occur in which the wahoo is wholly inadmissible, requiring remedies of the most opposite character. In those, for example, in which the disease is produced by the long continued and excessive use of spirituous liquors, where there is intestinal disease, &c., this remedy would be of doubtful efficacy, and should be prescribed with caution.

It has been heretofore remarked that this remedy had been used successfully in the treatment of autumnal fevers. I am not aware, however, in what particular form of fever its use has been of most benefit; neither am I aware of any physician who relies on it in the commencement of these diseases. Cases are not wanting, however, where its empyrical use has been of decided benefit in the commencement of remittents and intermittents. When prescribed in the commencement of these diseases, it should be exhibited with caution and be premised with blood-letting, or such other remedies as the case might seem to require. Cases have occurred where its too liberal use has produced hyper-catharsis. In the latter stages of these diseases, where a tonic and aperient is indicated, it may be resorted to in many cases with decided advantage; this point, however, has been sufficiently dwelt upon elsewhere.

The proper time for collecting the root of the wahoo is late in autumn or in the winter. No particular directions are ne-

cessary for its preparation, farther than to observe that it should be collected at a proper time, cleansed by washing, and the bark removed from the root and dried. The drying process may be conducted either by the heat of the sun in the open air, or by the aid of a moderate heat from a stove.

The mode of administering this substance may vary according to the indication to be fulfilled, or the convenience of administration. When administered for its tonic properties alone, the tincture may be used. This may be prepared of any strength that may be desired. From one to two ounces of the bark may be added to a pint of proof spirits, and permitted to digest for a sufficient length of time, which will afford a tincture of sufficient strength for ordinary purposes. Of this from f℥i to f℥ss may be taken at once, and repeated as often as occasion may require.

The infusion is perhaps the best form in which to administer it with a view to obtain its diaphoretic and diuretic effects. To prepare this, an ounce of the bark may be infused into a pint of boiling water, of which from f℥i to f℥iii may be given at stated periods.

The decoction is the form which is usually given as a cathartic, and is prepared by adding from one to two ounces of the bark to a pint of boiling water, and continuing the heat until the strength of the root is extracted. Of this from f℥ss to f℥ii may be taken, and repeated at intervals of from two to four hours, according to the urgency of the case, until its full cathartic effects are produced. Seldom, however, will it be necessary to repeat more than the second or third dose. The only unpleasant symptoms that I have known to arise from its use, has been hyper-catharsis when it was exhibited in too large doses. Some care, therefore, should be taken to prevent this occurrence. Should it occur, however, the remedies ordinarily employed in such cases, will be available. Another manner in which this substance may be given is in the form of an extract, which has recently been prepared by G. W. Carpenter, of Philadelphia, and which is much extolled for its remedial virtues and facilities of administration. I have, however, been unable to procure a specimen for examination, and am unable to speak of its physical properties.

PART II.—REVIEW.

ARTICLE III.

Homœopathy, Allopathy, and "Young Physic." By JOHN FORBES, M. D., F. R. S., Editor of the British and Foreign Medical Review, etc. etc. Philadelphia: Lindsay and Blakiston. 1846. pp. 124. (From the Publishers.)

This work is a reprint, in a separate form, of an article of the above named Review, and is marked by the clearness and vigor characteristic of the style of the editor, and by a liberality, fairness, and indulgence towards the Homœopathic doctrines, carried, we think, even to excess. Of this, however, our readers shall be the judges, as we lay before them an analysis of the contents of the book.

Samuel Hahnemann, the founder of the system, was born at Misna, in Upper Saxony, in the year 1755. and died at Paris only three years since, in the eighty-eighth year of his age. "No careful observer of his actions or candid reader of his writings, can hesitate for a moment to admit that he was a very extraordinary man—one whose name will descend to posterity as the exclusive excogitator and founder of an original system of Medicine, as ingenious as many that preceded it, and destined, probably, to be the remote, if not the immediate cause of more important fundamental changes in the practice of the healing art, than there have resulted from any, promulgated since the days of Galen himself."* He is further described as a man of genius, learning, great industry, and energy, deserving of being ranked among the greatest systematists and theorists. In reference to the character of Hahnemann, to judge from his writings, it appears singularly enthusiastic, sincere, upright, and honorable; we see no reason to doubt his good faith. He was the object of unjust persecution, obliged to take refuge in a foreign country and deserves, for that reason alone, to be well treated by mankind. But we are not able to perceive by what title he is to be ranked among the great theorists of medicine. As a *theorist* his views have always appeared to us whimsical and absurd in the highest degree. That we are not influenced in this opinion by prejudice, may be inferred from the following passage from the preface to the American edition of the Organon, written by one of the leading advocates of the system. "For myself I am generally considered as a disciple and adherent of Hahnemann, and I do indeed declare I am among the most enthusiastic in doing homage to his greatness, but, nevertheless, I declare, also, that since my first acquaintance with homœopathy, down to the present day, I have never yet ac-

* Page 7.

cepted a single theory of the Organon, as it is there promulgated."*

The first idea of the system is said to have found its way into the head of the author in the following manner. Having occasion, about the year 1790, to experiment upon himself with cinchona, he thought he discovered that it possessed the power of exciting symptoms like those of ague, hence arose in his mind the dawn of more rational therapeutics, "may not the power of the bark to cure ague," said he, "depend upon its power to excite in the healthy body a similar disease." He then proceeded to try the effects of other remedies on himself, and always, it is said, with the same result. Examining then the records of medicine in reference to the effects of poisons and strong drugs, and finding everything, as he believed, confirmatory of his views, he hesitated no longer but "promulgated the grand and universal law, that every (dynamic) disease is best cured by that medicine which is capable of producing, in the healthy body, similar symptoms, or a similar disease, or as it is stated more briefly, *similia similibus curantur*, like are cured by like, i. e.: homœopathically."

This is the foundation of his system, and in order to cure a disease according to it, it is only necessary to find a medicine capable of exciting in the healthy body, symptoms nearly the same as those noticed in the disease. He gave as the *rationale* of the cures thus effected the following, viz: that of two similar actions developed in the same part, the stronger destroys the weaker.

The principle and explanation being thus given, we come to the method of administering the remedies. This is done in *infinitesimal* doses, or in quantities so small as to be entirely inappreciable to the senses. This does not appear to be necessary to the homœopathic principle, but was adopted because the practitioner should only desire to excite a *medicinal disease*, slightly greater than the natural one, so that when the latter has been once cured, but little trace of the former should remain. It appears, that for this purpose the attenuation of the medicine can scarcely be carried too far if it be well chosen. "It is of little consequence that this attenuation may go so far as to appear impossible to common physicians, whose minds are only conversant with gross material notions." Although this attenuation of the dose did not necessarily result from the homœopathic principle, yet it has now been so universally adopted, as to be considered an essential part of the practice."

Nor is this to be wondered at, for if in acute diseases we administer medicines in active doses upon that principle, the results may easily be supposed less favorable, than when

* Preface to Second American Edition, page 15.

these are given in such quantities as to allow the free action of the *vis medicatrix naturæ.*

The efficacy of doses infinitely small, is, however, accounted for by Hahnemann by the increased sensibility of the diseased part. The following are the doses used:

1st. One hundredth of a drop or grain.
2d. " ten thousandth do do
3d. " millionth do do

and so on to the thirtieth, which contains one decillionth of a drop or grain. In order to aid the imagination in partly comprehending calculations, so entirely beyond the reach of the minds of men, the following observations are given from the work of Dr. Alexander Wood. That they may be understood, it must be recollected, that at the 6th dilution the dose is the billionth of a grain or drop. "A billion of moments have not elapsed since the (mosaic) creation of the world, and to produce a decillionth, that number, must be multiplied by a million seven separate times. The distance between the earth and the sun is 95 millions of miles; twenty of the homœopathic globules, laid side by side, extend to about one inch, so that 158,400,000,000 of such globules would reach from the earth to the sun. But when the thirtieth dilution is produced, each grain is divided into 100,000,000,000,000,-000,000,000,000,000,000,000,000,000,000,000,000,000,000,-000 parts, so that a single grain of any substance in the thirtieth dilution, would extend between the earth and the sun 1,262,-626,262,626,262,626,262,626,262,626,262,626,262,626,262,626,262 separate times."

It is to be remarked that the activity of these small doses depends upon the number of times it has been shaken, or the length of time it has been rubbed, each shake adding to its power, so that, says Hahnemann, "experience has forced me to reduce to two, the number of agitations, of which formerly I ordered ten at each dilution."

As many articles of diet or drink are used in such quantities as to operate sensibly upon the system, it becomes necessary, during the use of these remedies, to confine the patient to a low regimen, and a long list is given of articles prohibited and things to be avoided, such as coffee, tea, beer, wine, spirits, spices, aromatics, &c., also over indulgence, sedentary life, exciting books, sexual indulgence, anger, vexation, scorn, &c.

"So far it must be allowed," says one author, "the doctrines of Hahnemann have either a show of reason in themselves, or claim to be founded upon grounds even superior to reason—experience and experiment." But we now come to a part which must at present at least appear to be the work of pure imagination. He maintains that all chronic diseases, with scarcely an exception, are the result of *syphilis, sycosis,*

or *psora*, common itch. This latter he considers to be the origin of seven-eighths of all the chronic diseases and to be only capable of being cured by certain articles called anti-psoric.

This is a brief and imperfect, but yet as far as it goes, a correct view of the principles and theories of homœopathy. In order, however, to understand it more fully it must be known that the followers of this system attach but little, if any, importance to the morbid changes of the fluids or organs, or what, in ordinary language, is termed pathology. Disease is looked upon as spiritual, and the operation of medicines regarded in the same light. "The vital principle, as a spiritual dynamis, connot otherwise be assailed and affected than in a (dynamic) spiritual manner, neither can such morbid disturbances, or in other words, such diseases, be removed by the physician, except in like manner, by means of the spiritual (dynamic virtual) countervailing agency of the suitable medicines acting upon the same vital principle."*

Dr. Forbes (whose arrangement we mostly follow, giving but an abstract of his views,) then proceeds to examine into its truth.

1st. Is it true that the cinchona is capable of producing an ague, or something nearly resembling it? Few will hesitate to pronounce that it possesses for mankind at large, no power of the kind, and the same is true of most homœopathic remedies in common use. The symptoms ascribed to these, and of which there are several hundred for one single article, are either imaginary, accidental, or have no resemblance to those of the disease they are employed to cure. "By what means," says Hahnemann, "do they drown the distant roar of the enemy's cannon which carries terror into the breast of the soldier? By the deep-mouthed clangor of the big drum."† And a number of illustrations equally applicable are adduced.

2d. Is it true that substances, inert in large doses, acquire a wonderful activity when reduced to quantities beyond the power of imagination distinctly to conceive? "To be called upon to believe that the decillionth of a grain of oyster shell or charcoal is capable of producing hundreds of the most formidable symptoms, and of curing, as by magic, the most inveterate diseases, while we take ounces, nay pounds, of the same substances into our stomachs, with no other convenience than its mechanical bulk, seems so gratuitous an outrage on human reason, that the mind recoils instinctively from the proposition."

We pass over a number of theoretical points as the psoric-origin of most chronic diseases, &c., neither shall we spend

* Hahnemann. Organon, p. 59.
† Op. Cit. p. 89.

time in bringing forward objections or arguments against it. This were a waste of time, nor should we have devoted to it even this attention, had it not been that its claims, as a practical system, are less known than are its doctrines among the medical profession. Here again, we think that Dr. Forbes has made his representations of its results more favorable than justice would strictly warrant. It is no doubt true that "the disciples of Hahnemann are spread over the whole world." That "there is not a town of any considerable size in Germany, France, Italy, England or America, that does not boast of possessing one or more homœopathic physicians, not a few of whom are men of huge respectability and learning." It may also be true that "the Professor of Pathology in the university of Edinburgh has become a convert to its doctrines." But it is not the less true that the methods of cure recommended in its standard works, and the cases reported by its advocates, are altogether worthy of the doctrines. Take, as an example the following from the Organon, page 14. Speaking of affections of the stomach with acrid eructations, he says "these gastric affections of dynamic origin are commonly produced by a disturbed state of the mind, (grief, freight, anger,) cold, exertion of the mind or body immediately after eating, and sometimes even after a temperate enjoyment of food. Neither the tratrate of Antimony nor Ipecacuanha are suited to the purpose of removing this dynamic aberration." "But if the patient should only smell once to a globule of sugar of the size of a mustard seed, impregnated with the thirtieth dilution of pulsatilla, he is then cured in the space of two hours."

The question, however, may be considered in a different point of view, and putting aside the absurdity of the supposition that such means are capable of affecting the system, what are the evidences that cures are effected by it. On this point there is absolutely no means of judging at present. To afford sufficient data for this purpose, it would be necessary, that of a great number of patients placed in similar hygenic circumstances, a part should be treated "homœopathically, and the others be treated apparently in the same manner but with fictitious globules." Experiments of this kind, conducted on a large scale, can only determine the absolute potency or impotency of this plan of treatment, for whatever number of persons recover under its application, there is no means of knowing whether the same result would not have taken place without any medical treatment.

There are, however, at the present time, numbers of cases reported, treated homœopathically as well as otherwise, from which some judgment may be formed of the comparative value of this with other varieties of treatment. Among these, the most reliable part is the report of cases treated at the hos-

pital of the Sisters of Charity, which was opened in Vienna, in 1832, and since 1835 has been under the care of Dr. Fleischmann, who treats all patients homœopathically. From the beginning of 1835 to the end of 1843, there were treated 6551 patients, with the following results:

Remaining from 1834,	27
Admitted,	6524
Cured,	5980
Dismissed uncured,	112
Died,	407
Remaining,	50

The following extract will show the result in some of the more important chronic and acute diseases.

	Admit'd.	Cured.	Uncured.	Died.
Abscess of the Brain,	3			3
Cancer of Stomach and Uterus,	5		2	3
Ascites,	14	10	1	3
Fever, excluding Typhus,	1036	1007	1	17
Typhus Abdominalis,	819	669	2	140
Pneumonia,	300	280		19
Bronchitis,	15	15		
Pleuritis,	224	221		3
Phthisis,	98		27	71

It will readily occur to our readers that such tables, destitute of classification, date of admission, length of time required for cure, age, sex, symptoms by which each disease was recognized, are destitute of value as regards positive and accurate results. There are circumstances, too, which render the statements still more doubtful, such, for example, as the disproportion between the number of cases of bronchitis and those of pneumonia. But waiving all objections, and taking the cases as of average severity, what are the results? Certainly not more favorable than would be found with the ordinary method of practice. It would be useless to institute a close comparison between these results and those obtained elsewhere, under different modes of treatment, and in circumstances quite different. But it is seen at a glance, that of the diseases usually accounted incurable, as Cancer, Abscess of the Brain, and Phthisis, all the cases are either fatal or dismissed uncured, which is usually the same.

Of acute diseases, as Pneumonia, &c., the ratio of mortality is nearly the same as that usually observed under the ordinary modes of treatment. So that Dr. Forbes is disposed to admit, upon the authority of the table, of which the above is a small part, that the results are nearly the same as are found in ordinary practice. We would here add a word in regard to other trials which have been made of this practice.

It is known that in 1835, Andral administered homœopathic medicines at La Pitié to a large number of patients with-

out sensible effects. At St. Petersburg, the Medical Council after having tried, declared it as either useless or dangerous in cases where active treatment is required. At Naples, the public authorities revoked, after a trial of forty-five days, the permission which had been given for the establishment of a clinic of homœopathy. At Paris, besides those of Andral, trial was made of it in the words of M. Bailly, at the Hotel Dieu, with medicines prepared in Germany at the same establishment where Hahnemann procured his supplies. They were without effect, and the homœopath who directed them, retired after four or five months trial. At Lyons, in 1830, Dr. Pointe, professor of Clinical Medicine at the Hotel Dieu, put at the disposition of Dr. Gueyard, thirty beds. This latter, in presence of several physicians and pupils, examined the patients, prescribed the medicines, regimen, &c., and after 17 days of trial he gave it up.*

Dr. Forbes, after the report of Dr. Fleischmann, passes in review the cases given by Dr. Henderson in a work entitled "An enquiry into the Homœopathic practice of Medicine." We will not follow him in this part of his work. It is sufficient to give his conclusion, "that the amount of success obtained by Dr. Henderson in the treatment of his cases, would have been considered by ourselves very satisfactory, had we been treating the same cases according to the rules of ordinary medicine."

"In making these admissions in respect to the instances of treatment supplied by Drs. Henderson and Fleischmann, we wish formally to guard ourselves against being supposed to admit" "that the result of the homœopathic treatment generally, is as successful as the ordinary treatment generally." "On the other hand, we have not a little positive evidence to prove that it has often failed to cure in cases where, according to its principles and the alleged experience of its professors, it ought to have cured, and in which allopathy did effect a cure."

"The guiding principle of homœopathy appears to us to be of that character which must render its exercise very injurious to medicine as a branch of science. Based, as it is, on mere extrinsic, secondary phenomena, or symptoms, and exclusively engaged in the search for and adaptation of specific remedies to such phenomena, we cannot but regard it as calculated to destroy all scientific progress in medicine, and to degrade the minds of those who practice it." With such views of homœopathy, how are to be explained the cures effected under its ministration. Our author, in common with all judicious and observing men, attributes them to the power of nature, a power which he seems to think is greatly overlooked and undervalued by medical men of the present day.

* Dict. de Medicine, vol. xv, p. 358.

He even goes into a lengthened argument to show that nature can cure diseases without the interference of art. For ourselves we do not think this necessary, since every observing physician knows that, not only among savages, but even among civilized men, a great majority of all the diseases which occur, are not subjected to any medical treatment. Pneumonia, Pleuritis, Bronchitis, and all the more serious diseases, occur daily among the laboring classes, and especially those at a distance from physicians, and get well without medical aid. Many of these have been treated with simple diet and drinks, and found to terminate as favorable as under ordinary treatment, witness Typhoid Fever, Phthisis, etc. In this point of view, he thinks homœopathy likely to be of immense advantage to medicine, by enabling us to judge of the power of nature to cure diseases, and of their course when not interfered with by art.

We cherish no such expectations of the benefits to be derived from homœopathy. All makers of systems of late, if not always, have retarded medical science, or caused it to retrograde. Witness Broussais. Nor can it be otherwise at present. The time has not arrived for completing the edifice, but only for patiently gathering suitable materials.

If these doctrines are so absurd as is shown by Dr. Forbes, can any good be expected to result from them? If mankind are better without medicine, were it not wiser to say so at once, rather than abuse them with doses incapable of having any effect. If there were advantage to be gained from such a course, the profession might have reaped it long ago, for it was long since stated that "medicine is the art of amusing the patient while nature cures the disease."

The humblest physician who employs, in curing diseases, all the resources within his reach, we respect. But if he chooses to desert the only track which can lead to a full knowledge of the human system and its morbid states, and range himself under the banner of homœopathy, hydropathy, botanic, &c., or advocate the virtues of a "panacea" elixir of life, and other preparations of the same kind, we look upon his efforts as lost to science and humanity, however advantageous they may be to himself. It was this view, we presume, which influenced the Supreme Court of the State of New York in deciding homœopathy to be quackery. Far from expecting that it will be of service to science or mankind, we see clearly that it can only obstruct the progress of the former, that valuable lives will be, as they have been, sacrificed by hundreds and thousands upon the shrine of a false theory, and to the love of gain. Nor is this consideration the less painful from the fact that other systems have also had their victims. That antimony and calomel, and violent medicines of all sorts, have been used from habit, routine, and ignorance, until they

also have destroyed life and health. It is impossible, in many parts of our own country, not to see that it is but one error following another; that homœopathy is but a reaction against the excessive use of drugs. And this leads us to the essential part of the work we are reviewing, the consideration of the present state of medical practice, and the reforms which are necessary. It is for the purpose of laying these before our readers, as well as in part to make them acquainted with the progress of various medical doctrines, that we have noticed this work so much in extenso. We will only add that the difficulties at the present time, do not, in our own judgment, rest so much with the science, as the modes in which it is taught and practiced. The following is the concluding part of the work to which we referred.

"It would be presumptuous in us, in the present stage of the question, to attempt to give even a formal outline or sketch of the Reform in Practical Therapeutics which appears so necessary, and which we believe to be impending. This is a work which can only be the result of mature reflection, and of the labor of many years and many hands. All which we can think of attempting at present, is to set down, almost at random, a few of the various considerations that press upon us, touching the many things to be thought of and done, the manifold evils to be abated, the manifold benefits to be achieved, by the enthusiastic and active spirits whom we have heretofore sportively personified under the name of 'Young Physic,' and to whom we look with confidence for the consummation of the great Reformation which assuredly will come.

"In submitting these suggestions to criticism, we would request, that their extemporaneous and undigested character be borne in mind. All of them, we believe, to be true and just; many of them of high importance; and although more mature reflection may prove some of them, at least, to be neither the one nor the other, we shall, nevertheless, not regret having written them. They may excite others to consider this momentous subject, and thus elicit from better minds, thoughts worthier of remembrance and fruitful of greater things.

Cogitanda—Excogitanda—Agenda.

"1. To endeavor to ascertain, much more precisely than has been done hitherto, the natural course and event of diseases, when uninterrupted by artificial interference; in other words, to attempt to establish a true Natural History of human diseases.

"2. To reconsider and study afresh the physiological and curative effects of all therapeutic agents, with a view to obtain more positive results than we now possess.

"3. To endeavor to establish, as far as is practicable, what

diseases are curable and what are not; what are capable of receiving benefit from medical treatment and what are not; what treatment is the best, the safest, the most agreeable; when it is proper to administer medicine, and when to refrain from administering it; &c. &c.

"4. To endeavor to introduce a more philosophical and accurate view of the relations of remedies to the animal economy and to diseases, so as to dissociate in the minds of practitioners the notions of *post hoc* and *propter hoc*.

"The general adoption by practitioners in recording their experience, of the system known by the name of the *Numerical Method*, is essential to the attainment of the ends proposed in the preceding paragraphs, as well as in many that are to follow.

"5. To endeavor to banish from the treatment of acute and dangerous diseases, at least, the ancient axiom, *melius anceps remedium quam nullum*, and to substitute in its place the safer and wiser dogma—that where we are not certain of an indication, we should give nature the best chance of doing the work herself, by leaving her operations undisturbed by those of art.

"6. To endeavor to substitute for the monstrous system of Polypharmacy now universally prevalent, one that is, at least, vastly more simple, more intelligible, more agreeable, and, it may be hoped, one more rational, more scientific, more certain, and more beneficial.

"7. To direct redoubled attention to hygiene, public and private, with the view of preventing diseases on the large scale, and individually in our sphere of practice. Here the surest and most glorious triumphs of medical science are achieving and to be achieved.

"8. To inculcate generally a milder and less energetic mode of practice, both in acute and chronic diseases; to encourage the Expectant preferably to the Heroic system—at least where the indications of treatment are not manifest.

"9. To discountenance all active and powerful medication in the acute exanthemata and fevers of specific type, as small-pox, measles, scarlatina, typhus, &c., until we obtain some evidence that the course of these diseases can be beneficially modified by remedies.

"10. To discountenance, as much as possible, and eschew the habitual use (without any sufficient reason) of certain powerful medicines in large doses, in a multitude of different diseases, a practice now generally prevalent and fraught with the most baneful consequences.

"This is one of the besetting sins of English practice, and originates partly in false theory, and partly in the desire to see manifest and strong effects resulting from the action of

medicines. Mercury, iodine, colchicum, antimony, also purgatives in general and blood-letting, are frightfully misused in this manner.

"11. To encourage the administration of simple, feeble, or altogether powerless, non-perturbing medicines, in all cases in which drugs are prescribed *pro forma*, for the satisfaction of the patient's mind, and not with the view of producing any direct remedial effect.

"One would hardly think such a caution necessary, were it not that every-day observation proves it to be so. The system of giving and also of *taking* drugs capable of producing some obvious effect—on the sensations, at least, if not on the functions—has become so inveterate in this country, that even our *placebos* have, in the hands of our modern doctors, lost their original quality of harmlessness, and often please their very patients more by being made unpleasant!

"12. To make every effort not merely to destroy the prevalent system of giving a vast quantity and variety of unnecessary and useless drugs, (to say the least of them,) but to encourage extreme simplicity in the prescription of medicines that seem to be requisite.

"Our system is here greatly and radically wrong. Our officinal formulæ are already most absurdly and mischievously complex, and our fashion is to double and redouble the existing complexities. This system is a most serious impediment in the way of ascertaining the precise and peculiar powers (if any) of the individual drugs, and thus interferes, in the most important manner, with the progress of therapeutics.

"We are aware of the arguments that are adduced in defence of medicinal combinations. We do not deny that some of these combinations are beneficial, and therefore proper; but there cannot be a question as to the enormous evils, speaking generally, resulting from them. Nothing has a greater tendency to dissociate practical medicine from science, and to stamp it as *a trade*, than this system of pharmaceutical artifice. It takes some years of the student's life to learn the very things which are to block up his path to future knowledge. A very elegant prescriber is seldom a good physician. And no wonder. Tailors, barbers, and dancing-masters, however learned they may be in the externals of gentility, are not expected to be fine gentlemen or men of fashion.

"13. To endeavor to break through the routine habit, universally prevalent, of prescribing certain determinate remedies for certain determinate diseases or symptoms of diseases, merely because the prescriber has been taught to do so, and on no better grounds than conventional tradition.

"Even when the medicines so prescribed are innocuous, the routine proceeding impedes real knowledge by satisfying the mind, and thus producing inaction. When the drugs are

potent, the crime of mischief-making is superadded to the folly of empiricism. In illustration, we need merely notice the usual reference, in this country, of almost all chronic diseases accompanied with derangement of the intestinal functions, to 'affection of the liver,' and the consequent prescription of *mercury* in some of its forms. We do not hesitate to say, that this theory is as far wrong as the practice founded on it is injurious; we can hardly further enhance the amount of its divarication from the truth.

"14. To place in a more prominent point of view the great value and importance of what may be termed the physiological, hygienic, or natural system of curing diseases, especially chronic diseases, in contradistinction to the pharmaceutical or empirical drug-plan generally prevalent. This system, founded as it is on a more comprehensive inquiry into *all* the remote and exciting cause of disease, and on a more thorough appreciation of *all* the discoverable disorders existing in all the organs and functions of the body, does not, of course, exclude the use of drugs, but regards them (generally speaking) as subservient to hygienic, regimenal, and external means,—such as the rigid regulation of the diet, the temperature and purity of the air, clothing, the mental and bodily exercise, &c., baths, friction, change of air, travelling, change of occupation, &c. &c.

"15. To endeavor to introduce a more comprehensive and philosophical system of Nosology, at least in chronic diseases, whereby the practitioner may be led less to consider the name of a disease, or some one symptom or some one local affection in a disease, than the disease itself—that is, *the whole* of the derangements existing in the body, and which it is his object to remove, if possible.

"16. To teach teachers to teach the rising generation of medical men, that it is infinitely more *practical* to be master of the elements of medical science, and to know diseases thoroughly, than to know by rote a farrago of receipts, or to be aware that certain doctors, of old or of recent times, have said that certain medicines are good for certain diseases.

"17. Also to teach students that no systematic or theoretical classification of diseases, or of therapeutic agents ever yet promulgated, is true, or anything like the truth, and that none can be adopted as a safe guide in practice. It is, however, well that these systems should be known; as most of them involve some pathological truths, and have left some practical good behind them.

"18. To endeavor to enlighten the public as to the actual powers of medicines, with a view to reconciling them to simpler and milder plans of treatment. To teach them the great importance of having their diseases treated in their earliest stages, in order to obtain a speedy and efficient cure; and,

by some modification in the relations between the patient and practitioner, to encourage and facilitate this early application for relief.

"19. To endeavor to abolish the system of medical practitioners being paid by the amount of medicine sent in to their patients; and even the practice of keeping and preparing medicines in their own houses.

"Were a proper system introduced for securing a good education to chemists and druggists, and for examining and licensing them—all of easy adoption—there could be no necessity for continuing even the latter practice; while the former is one so degrading to the medical character, and so frightfully injurious to medicine in a thousand ways, that it ought to be abolished forthwith, utterly and for ever.

"20. Lastly, and above all, to bring up the medical mind to the standard necessary for studying, comprehending, appreciating, and exercising the most complex and difficult of the arts that are based on a scientific foundation,—the art of Practical Medicine. And this can only be done by elevating, in a tenfold degree, the preliminary and fundamental education of the Medical practitioner." D. B.

ARTICLE IV.

Fragments of Medical Science and Art. An Address delivered before the Boylston Medical Society of Harvard University. By Henry Jacob Bigelow, M.D. Published by the Society. pp. 54. (From the Author.)

To know one's ignorance is the first step to improvement; an axiom as fully applicable to a science as to an individual. Were it possible that the true condition of Medical Science could be known to all its votaries, not only would it advance with more rapid strides towards perfection, but its advance would then be real, while alas! it is now, but too often, apparent. When we see the once apparently established theories of age after age, crumbling into atoms and leaving but a mass of rubbish to impede the progress, and to be cleared away by future or present laborers, we are naturally lead to enquire into the causes of this want of durability. The subject matter of the above Address is, in general terms, an exposition of these causes, and of the true mode of conducting pathological investigations. The Address commences with a review of the Baconian system of philosophy, and its applicability to medical science. In speaking of the sources of false systems the author remarks:

"It does not require patient investigation and laborious thought to frame a false system of philosophy, to deduce an

ingenious theory from a few facts; but truth unveils herself to constancy alone, to persevering love, of which few are capable. Nor is it the cause of error to which man, once enlisted, clings with such tenacity; he clings to his own cause; his own philosophy; with the determination of a chief or the zeal of an adherent; pride animates and prejudice arms him; it is the cause of human passion. It is not then wonderful that there are so few minds able to divest themselves of human weakness, to acknowledge error and abandon cherished fallacy, to love truth for its own sake; and to find in its discovery a source of elevated happiness."

A few remarks upon false generalization, showing the fertile soil producing the many quackeries of the age, we may also quote.

"The inductive method also teaches, that if truth lies in facts, we have only to collect facts to discover it. But Bacon knew how ready the mind is to pursue some false light into the morass of error; 'to start off to generalities, that it may avoid labor.' To insure accuracy, therefore, facts are to be written down and subsequently counted. In Bacon's own words, 'we must form tables and coördinations of instances, upon such a plan and in such order that the understanding may be enabled to act upon them.'* All this is now obvious and undoubted. False theory is not the error of our day, nor of our scientific community. But while in medicine, the value of facts is recognized, possibly overrated, their application is a fertile source of error.

"Open any medical journal of the last week, or of last year, and you shall find an account of some new, successful remedy; and yet another year shall obliterate this record, and substitute new methods equally infallible. There is error either in the facts or in the induction. Here is Bacon's quaint exposition of this fallacy. 'It was well answered by him who was shown in a temple the votive tablets, suspended by such as had escaped the peril of shipwreck, and was pressed as to whether he would then recognize the power of the gods, by an inquiry, 'But where are the portraits of those who have perished in spite of their vows?'† We listen to partial or imperfect evidence. Impressed with an idea, we accept only the facts whose tendency confirms our notion. In the words of Bacon,‡ 'It is the peculiar and perpetual error of the human understanding to be more moved and excited by affirmatives than negatives, whereas it ought duly and regularly to be impartial; nay, in establishing a true axiom' (or law) 'the negative instance is the most powerful.' These natural tendencies of the mind, then, show the necessity of insuring accuracy by writing; 'the understanding being as incapable of acting on such materials of itself, with the aid of memory

* Nov. Org. B. 2, Aph. 10. † Id. B. 1, Aph. 46. ‡ Id. B. 1, Aph. 45.

alone, as any person would be of retaining and achieving by memory the computation of an almanack.' 'Yet meditation,' says Bacon, and with almost equal truth might it have come from Louis, 'has hitherto done more for discovery than writing, and no experiments have been committed to paper.'*

"In its most general sense, induction is not only applicable, it is essential to the discovery of all law in nature. The student admits this, and yet at some time or other most of us have felt a certain undefined doubt whether the inductive method was adapted to the wants of medical science."

After premising a general view of the inductive system of philosophy, the author proceeds to discuss certain questions of interest in connection with medical science, "and first, How much of medical science is drawn from fact by process of induction, and how far are we able to anticipate this process, and to fortel certain facts by means of others?" In regard to the three forces governing the laws of nature, viz: "mechanical, chemical, and, in a more limited degree, polar force," the inductive system is indisputably applicable, and the only true mode of scientific investigation, and, of course, where they are found to have a bearing upon medical science, that system must be followed in the investigation of medical laws. But in addition to these forces in medical science "there are vital forces at work which counteract the most obvious tendencies of the material particles of the human fabric. What prevents the arteries from being dyed red, or the body from falling to the ground, or in short the whole mass from decomposing? It is vital force, whose power to hinder the most obvious effects of other force must, till we comprehend its nature, render all prediction in the vital science falliable."

We continue to quote the author, as his own language is as much condensed as the nature of the subject will permit and we are loath to leave out one word of it.

"There are but few sciences in which we have detected the machinery which is the immediate cause of their phenomena; and although, in the words of Bacon, 'It is rightly laid down that true knowledge is that which is deduced from causes,'† many sciences like ours are made up merely of aggregated facts, without reference to the manner of their production. Laws of phenomena are the sum and expression of knowledge already acquired; they open no new region of knowledge. Why do we know that lymph is and will be common on the tonsils and in the air tubes? Because we have observed it. But what does this tell us of the intestinal canal, or other mucous surfaces, where it is comparatively rare? It tells us nothing; we know only what we have known. Our knowledge is limited by the fact; and with blind reliance we trust in

* Nov. Org. B. 1, Aph. 45. † Nov. Org. B 2, Aph. 2.

nature's constancy, and in the accurate adjustment of her vast machinery. Far different is the science which studies the detail of the great machine, which understands its complex movements and detects its variations, which wrests from resisting nature her great secret, and fortels, ages beforehand, the workings of her universal laws.

"Yet have these laws of phenomena a great and undisputed value. The facts, in the words of Kepler, 'are collected into one fagot,' though no scrutiny has enabled us to penetrate their substance. Laws of phenomena detect and assert the similarity of facts, they point out their common element, and draw from each a thread by which they are suspended from a common centre. In time these threads are twisted into cords, which in their turn are woven into some great fabric. They distinctly state a proposition which is to be subsequently proved or disproved, and supply a series of equations from which the value of the common x is finally deduced. In the instance, for example, of polarity, a force now in process of discovery, we thus trace the connexion of the ray of the setting sun as it was reflected from the windows of the Luxembourg with the phenomena of crystallization, chemical affinity, magnetism and electricity. Wild and straggling facts of unknown growth are here laid side by side. They are brought into the domain of science, and the wedge is at last entered which lays them open and reveals their hidden entity.

"The chief employment of the medical philosopher is to establish these laws of phenomena; to ascertain the frequency with which certain facts occur with other facts; to point out the element most constant to a wide range of phenomena; the very ends which the inductive method of Bacon, and the numerical method of Louis, its medical application, teach us to attain it with certainty. Medical diagnosis and medical prognosis obviously grow out of rigid induction.

"But let us note an important distinction in the present application of this return to diagnosis and to therapeutics. If we err in our principles of diagnosis, it is of comparatively little consequence. If we choose to consider sore-throat a necessary effect of the cause which produces the other symptoms of scarlet fever, or the eruptions essential to the exanthemata, when they are really only incidental to them, science alone suffers. The inductive method offers us the surest results we can obtain, even though these are uncertain. But if we err in therapeutics, it is not science alone, it is the patient that suffers. Suppose it is conclusively shown, that when a hundred patients are bled in a certain disease, fifty-five always recover; and that when these hundred patients are not bled, only fifty get well; and suppose we bleed our hundred patients; we shall be very likely to kill somebody who, otherwise treated, would have proved a useful member of society.

Science gains her five per cent, but humanity loses a man or a woman or a child. Such treatment may do for armies, where one man is as good as another; but does not answer for individuals, by nature prone to over-estimate their personal consideration.

"The fact is, the diseases we compare, and whose similarity we affirm, are very dissimilar. Every case of disease varies in its character from every other case of the same disease. It varies in its intensity, its complications, and its tendencies. It varies with the constitution of the patient, and with external influences. It varies in the rapidity of its march, and in the duration of each symptom. The same treatment, therefore, affects single cases very differently. But it is a singular principle in nature, that differences tend to neutralize each other in the long run. That while individuals deviate, like the asteroids in their revolutions, equally above and below a fixed line, the tendency of the mass is to an average always constant. This principle equalizes the number of births and deaths; of male and female children; it makes the annual proportion of dead letters to other letters always the same in the English post-office; and in exactly regulating the laws of mortality, it guarantees success to life insurance companies founded on proper computations. But it does not tell us the sex of the child, nor the length of any man's life, nor the chance any given letter has of being called for. Men vary above or below a certain healthy standard. If in some disease this standard is too high, it must be lowered, but in this process some one whose scale of mortality is already low will be submerged, yet we cannot tell who this individual will be, until we know what constitutes vital force. No rule in therapeutics applies indiscriminately to any other than a theoretically fixed standard of disease; if we can arrive at such an ideal standard by only averaging the mass, the rule is applicable only to this mass; and so long as the practice of medicine is for the benefit of individuals, such a principle will be of limited utility to the physician. To give fair play to this equalizing tendency, induction should be based upon a broad range of facts. Narrow induction is the bane of medical science, and the physician who infers that nature will gain her equilibrium in three or five successive facts, and argues from them, might with equal wisdom, in a game of chance, bet upon *rouge*, because it has won but twice, while *noir* has gained three times.

"But let no one argue for these reasons the inadequacy of the inductive method. It is ignorance alone that hinders us from availing ourselves of it. If medicine were an exact science it would be not only applicable but necessary to therapeutics, and as science advances, and we approach nearer and nearer this stage of medical knowledge, induction becomes more and more indispensable. And even now the self-ad-

justing tendency of nature furnishes us truth in its relation to the mass. The inductive method is of undisputed value in determining, for example, whether a supposed remedy has or has not a value. More than this it tells us very nearly what this value is. If fifty patients in a hundred have recovered from a certain malady under the use of carbonate of iron, and fifty in a hundred have got well without it, I decide this remedy to be nearly inert in this diease. If the proportion of the recoveries under the remedy much exceed this statement, I infer that the medicine possesses some degree of efficacy; if the number of recoveries is much less, I am equally sure it is injurious. And I am right in all these suppositions. But there is another quality of the inductive method, and I am not aware that it has been observed, which requires that the results derived from it, at least in therapeutics, should be of unequivocal numerical force. The inductive method speaks of coincidence and not of cause. The lesion of Peyer's glands is coincident with febrile symptoms in typhoid fever, and so also is sore throat in scarlet fever; but we have only probable evidence whether either of these conditions is a cause or an effect. Now this relation is essential in therapeutics, we require that a remedy should seem to be a cause of convalescence, and not merely a coincidence. If with Hildanus I anoint the axe that made the wound, and fifty-five instead of fifty per cent. of wounded knights recover, does the additional five per cent make me believe in the efficacy of the "*unguentum?*" Can I believe in the therapeutic agency of dead man's touch, or

> "Slips of yew silvered in the moon's eclipse,
> Nose of Turk and Tartars's lips."

Reason is against it, in spite of any possible and obvious cajolery of the inductive method. In the connexion of remedy and disease, we must see a probable, or at least not impossible relation of cause and effect; and whence shall we derive this evidence? It must be supplied by the mind of the observer, and based either upon previous general or medical experience, or else upon the evidence of the immediate experiment, which must, for this end, be of overwhelming force.

To be applicable even to the mass, the evidence should be of weight, and it has been shown that unless the evidence be conclusive, and hold good of all the individuals upon whom the experiment is tried, we have no right to apply to individuals that which is true only of the mass. We can follow no indiscriminate rule in therapeutics. We can only pause and weigh the indications, and decide each case upon its own requirements. It was a common saying of the late Dr. Baillie, 'Learn your profession well, and practice it on rule of common sense;'* and it cannot be denied, that in the therapeutics

* Observations in Medicine, Marshall Hall, Chap. 2.

of the present day, the physician must rely to a great extent on the resources of his judgment. And what is judgment? It is the faculty which God has given man to supply the place of certain knowledge. Because invading pneumonia must be bled, will you bleed the wretch already lingering on the borders of the grave? Judgment is the act of common reason; it is a logical decision based upon the evidence of facts; and is this faculty impossible to you? Shall not your hundred cases of fever, analysed, combined, weighed, sifted in the wards of a hospital, be to you at least as the 'experience' of a hundred cases, scattered among the engrossing occupations of twenty years? Do not struggle with the crushing incubus, distracting you with its monotone, that judgment and experience come only with age. Is medical science the only one beyond the reach of active intellect? Is the mind to be depleted, and the vital force exhausted down to the comprehension of the vital science? But I am encroaching upon ground I intend to occupy at the latter part of these remarks."

Pages 19 to 32 discuss the value of hypotheses, and show in a clear and lively style, the proper mode of their construction and their abuse. The danger of abuse our author correctly refers to the devotion of the investigator to his favorite theory, —the feeling of parentage—as may be seen in the following:

"But facts are not to be perverted. Their use is to test, to prove or disprove, not to confirm theory. The error of former science, the error of recent medicine, was not that hypotheses were made, but that they were constructed to be proved; that truth was warped and misapplied; that facts were prostituted in the cause of ignorance and prejudice. Philosophers made a show of listening to the evidence of nature, while they aimed to prove a verdict, which was signed and sealed before the trial. Such, in our science, were the 'inflammation' of Broussais, the febrile theory of Cullen, the stimulating system of Rasori, and many other theories, which first stated a proposition, and then collected facts to support and confirm, not to test it."

The success of great discoverers in unraveling the intricate mazes of scientific phenomena, is referred to their inveterate love of truth, which lead them to reject, at once, one hypothesis, the moment it is contradicted by fact.

The Address goes on to show the character of mind most successful in building up hypotheses, and conducting them to correct conclusions. We have, upon this part of the subject, but space for a few short remarks of our author. He says, "I have tried to show that it is not the ability to sum up the common elements of facts arranged in tables, nor to verify hypothesis, that adapts a mind for observation. I will add that is not the mere power to make a theory. The theory

must be of a certain quality; a probable if not a successful one. * * * * "But while facility in forming probable theory is distinctive of scientific genius in the mind of the philosopher, the love of truth is steadfast and predominant. No ingenuity of reasoning, no parental affection for theory, no human passion, turns it from the contemplation of reality. It never shrinks from the untold labor of investigation; it is hard upon the tracks of truth, and staunch in its pursuit."

The value of *facts* and the uses to be made of them, forms the next subject of our author, and, while he recognizes their value as the means of establishing a starting point for the inductive philosopher, he condemns the tendency of the age to amass facts without connecting them with causes, or their relations to medical laws. In this regard our author gives the French school the credit of superiority. His advice in this connection, if followed by contributors to medical periodicals, would, we think, give to their communications a value which they do not, in general, possess.

"But facts are not the end of science, and you are not to amass them blindly. Have a purpose in your investigations; let it be either of self education, of verifying for yourselves what is already established, of forming an hypothesis, or of testing one. Do not think that impartiality in observation requires that a fact should stand alone; should offer no indication of the existence of any other fact. Rather endeavor to find some true relation between a symptom and its immediate cause, between a sign and any alterations of structure or of function, between one disease or lesion and another. Here, if I may say it, there seems to me to be a difference in the tendencies of medical knowledge in this place and in the French school.* The connection of medical phenomena is there, if possible, determined. Every fact is labelled with its scientific value. There, a true relation is, if possible, indicated; here, if possible, it is evaded. The details of a medical case may be narrated or recorded promiscuously and without order, or methodically, to illustrate its bearings upon certain points. Either history will embrace all the facts; but while one supplies only the crude material, the other shapes the block and designates its place in the future edifice, and leaves to future science only the labor of adjusting it. The ill digested observation is in fact comparatively useless. Medical discovery has generally been the work of individuals, who had their hypotheses and have analyzed facts in some especial relations, and not of societies, who have collected them indiscriminately. But if any discovery is ever to be thus made, if observations thus accumulated by different individuals are ever to be collected, and studied together, especially when we remember the diffi-

* See Appendix C.

culty and almost impossibility of analyzing a wilderness of medical facts matted and felted together into a dense and tangled mass, let us be ready to advance the labor in our humble spheres, at least in showing what points our observations are intended to illustrate, and in adopting a methodical and condensed arrangement which shall facilitate their future comparison."

The Address, in defining the position of Medical with other departments of Science, acknowledges its imperfections, and ascribes it to the difficulty of recognising the modes of action of the *force of life;* that while the "astronomer's facts repeat themselves after a determinate interval; the chemist occasions his at will, the pathologist can only wait for promiscuous phenomena, whose occurrence is amenable to no known influences."

The usefulness of our profession is set forth as follows:

"Have I seemed to limit too narrowly the range of our professional usefulness? Will it be said, that I am treacherous to the cause of medical science, in confirming, by the evidence of an adept, what was already suspected by the uninitiated? The dignity of our science will not be diminished by a recognition of its real abilities. It is its actual condition, and not the avowal of it, that can alone add or detract from its real character. If our science has advanced little, in comparison with some others, it is because it is built upon them, and because its problems are combinations of the most difficult and unexplored of their laws. But if it is among the least advanced, it is among the most important. It wields many of the physical conditions of human existence. It has averted physical calamities, which would by this time have anticipated whole ages of aggregated human life. Were it for its single power of controlling sensation, our profession would be necessary to the civilized world. But we can do far more than this. The physician can foretel the duration of most acute diseases; and apart from the accidents of life, he promises health. He alone can judge, from a wide combination of symptoms, of the actual condition of the patient. He condemns without appeal. He can sometimes arrest disease, and can often modify symptoms, or mitigate their severity. In its true form, our science is already indispensable to man."

We have already extended our review of this admirable address much further than we had intended, but such has been our appreciation of its excellence, our admiration of the sterling truths which it contains, that our labor has not been in selecting passages of value and interest, but to determine what we should be most willing that our readers should lose, and extended as have already been our extracts, we cannot close without quoting some selected paragraphs of the portion

of the Address, devoted to advice, as to the conduct of medical practitioners, their duties to the profession, their patients and themselves.

"True boldness is that which a sense of competency maintains. Weigh your ability, and decide whether you are competent to a responsible position. Do not confound with the question of ability, that feeling of repugnance, which every young man has in undertaking an untried duty. With a well grounded confidence, justice to yourselves demands the sacrifice of vague doubts and nervous hesitation. Endeavor to know in medicine what is to be known; and while you save yourselves much of the embarrassment which arises from a want of confidence, you will spare yourselves the necessity of dissimulating ignorance. There was a time, and that not far distant, when the grave and professorial air was a necessary part of our professional attainment; when an expression of profound sagacity hung as a veil before the mysterious recesses of the mind; and an air of deprecating merit seemed to restrain and to dam up unknown depths of wisdom. A good physician generated an oppressive atmosphere, which stifled vivacity and animation. His speech was oracular and final; and as he listened, his surcharged countenance expressed, like that of the bird of wisdom, a severe and unblenching appreciation.

"Such was, and sometimes is, the mask of ignorance; but there was much in the position of bygone generations of physicians which justified pretension. The medical man was surrounded by those who leaned upon his art with blind reliance, and exacted from him superhuman skill; and he assumed the infallibility thus spontaneously offered. Such a false position is not ours. We owe it to those who have prostrated their best energies in our cause, that there is now something to be known, for which a severe and professional demeanor is no longer a substitute. The physician may now discourse on medical subjects honestly, and hopefully; and the offspring of his knowledge, the positive amelioration of man's physical condition, justifies him in avowing the inadequacy of his art, without fear of derogating from its dignity, or of impairing confidence in himself. I well remember my surprise when a medical student, on hearing one who is eminent among us, proclaim, in answer to some medical question, that 'he did not know.' It was the ignorance of knowledge. Such downright, avowed medical ignorance, is rare; still it is worth while to learn what is to be learned, if only to avoid the error of those who, rightly believing there is much they do not know, pretend to know much that cannot be known." * * * * "The actual desire of people to be deceived has become classical; and to respond to this, in the words of Johnson, 'there is in human nature a general inclination to make people stare; and every

wise man has himself to cure of it, and does cure himself.'*

"If the admiration of ignorant or weak minds is an object of your ambition, minister to this vitiated and uneducated taste; encourage credulity; invest your art with technicalities; exhibit your results, and studiously hide your methods. But if you desire to place your science upon a level with other sciences, aim with Bacon 'to make wonders plain, and not plain things wonders;'† lay it open to the world, and strip it of the repulsive garb of false pretension. Common expediency at least teaches this. The day is fast going by when the intelligent and the instructed attribute to the physician superhuman sagacity. The physician is now often asked for his premises, by people who think themselves possessed of sufficient logical abilities to follow him to his conclusions; and it is because the patients of this generation insist upon being told why, and not what, that the despotic sway of our professional ancestors is gradually escaping from our grasp. If you ever acquire in these days a reputation for infallibility, it will be after you have shown how you are infallible. All this is in accordance with the spirit of the age, which rules enlightened reason, and not ignorance, and persuades by the authority of facts, and not by its own authority.

"When, therefore, you examine a medical case, neither shake your head with the negation or the affirmation of profundity, nor indicate by your countenance the perplexity of overwhelming thought; but enter upon your duty with even an unprofessional cheerfulness, content to use the finite powers which God has given you. Spread out the facts; show which way they point. Do not say what your opinion is, but why it is so; give the evidence and all its bearings; push the diagnosis to its full extent; but remember there is a point at which the imperfection of our knowledge bars advance, and beyond which all is surmise and uncertainty. It is a common error, especially among students, to suppose that the physician must always arrive at some decision with regard to the character of a lesion or disease. It is not so, a diagnosis is often uncertain. The evidence points equally in two directions, and in such a case, ignorance alone asserts impossible knowledge."

* * * * *

"Content to exert a healthful influence within the immediate circle of your art, do not waste your breath in exposing error beyond the limits of real medicine; in holding up to indignation the heartlessness which supplies straws to the dying man, and tortures him with false hope, until his palsied grasp has yielded its last coin;—still less in pointing out the fallacy of those medical pseudo-sciences which last a few short years, and die of inanition; which rapidly replace each other, with nothing in common but their friends, vociferous in their

* Boswell, 1769. † Pref. to Nat. Hist.

constancy to each in health and strength, but in its waning years quietly deserting it, for some more profitable alliance. These fungous parasites of science are the natural food of weakness and credulity; a necessary to the vitiated taste of the more cultivated, or a luxury to vanity, which gratifies itself in detecting and appreciating what is obvious only to few. As well might you deprive such believers of their daily sustenance, as displace from their minds their hygienic theory. With the sound and intelligent no such attempt will be needed; with others none will avail. But in your own immediate art, scrupulously guard the barrier which professional convention has erected against the unsound in morals or in science. You cannot be too cautious in taking measures to advance your individual interest, which may be popularly confounded with those resorted to by the unprincipled.

* * * * *

"Introduce nostrums into every human art, but do not aspire to the notoriety which deals in secrets, and takes out letters-patent for the common offices of Christian charity. Humanity revolts at this shallow artifice of those who cannot gain the eminence ever accorded to superiority. If art is sometimes thus prostituted by those who feel no interest to maintain its dignity, thank God there is an inner temple, beyond whose precincts no sacrilegious selfishness has ever penetrated. Science radiates truth, like light, upon the world. The contemplation of the order and harmony of nature, the intercourse of truth, warms the heart, as it enlarges the intellect, and elevates man into a sphere where self is sacrificed. Great discoverers in science have been ever philanthropic; that they have shed their knowledge upon the world as freely as they have devoted their best days to its pursuit, is a fact so universal and infallible, that he who now attempts to conceal his pretended discovery, exposes to the intelligent, with his own selfishness, the fallacy of his pretensions.

"Lastly, do not lose sight of your science in your own intercourse with art. * * * * *

"Indolence, the routine of art, perhaps the demands of hard necessity, shall engross many of us in our narrow spheres, and bend us from the pursuit of knowledge. But in the struggle and turmoil of active life, do not forget your debt to science, which ever toils in quiet, unremittingly; heedless alike of its own transitory interests, and of the world around; whose highest aim is, year after year, to add its new contribution to the sum of human knowledge, which promotes by its example the best interests of our profession; which is content to find its happiness in a tranquil intercourse with the great truths of nature, and the manifestations of unerring sagacity."

J. V. Z. B.

PART III.—BIBLIOGRAPHICAL NOTICES.

ARTICLE V.

New Elements of Operative Surgery. By ALF. A. L. M. VELPEAU, Surgeon of the Hospital of La Charité, &c., &c. Carefully revised, entirely remodelled, and augmented with a treatise on Minor Surgery, illustrated by over 300 engravings incorporated with the text, accompanied with an Atlas in quarto of twenty-two plates, representing the principle operative processes, surgical instruments, &c. First American from the last Paris edition. Translated by P. S. Townsend, M.D., late physician to the Seamen's Retreat, Staten Island, New York. Augmented by the addition of several hundred pages of entirely new matter, comprising all the latest improvements and discoveries in surgery, in America and Europe, up to the present time. Under the supervision of Valentine Mott, M.D., Professor of the Operations of Surgery with Surgical and Pathological Anatomy, in the University of New York, &c., &c. In three volumes Vol. II. J. & H. G. Langley. 1846. pp. 992. (From the Publishers.)

It is necessary to add but little to the title page to give the reader all the information necessary, at this moment, in relation to this work. The part by Velpeau is, or should be, already familiar to surgeons every where, but this, voluminous as it is, is nearly equalled in size by the additions of the translator under the direction of Dr. Mott. We have not yet had time for a full examination, but shall attempt, in our next No., to present to our readers a review of the more interesting additions which have been made to the original work.

In the meantime, it is scarcely necessary to recommend the work of Velpeau & Mott to all Surgeons. The third volume and atlas are announced for publication during the approaching Autumn. The price of the whole will be but $10.

D. B.

A defence of the Medical Profession of the United States: being a Valedictory Address to the graduating class at the Medical Commencement of the University of New York. Delivered March 11, 1846, by MARTYN PAINE, A. M., M. D., Professor of the Institutes of Medicine and Materia Medica in the University of New York. &c. New York. 1846. pp. 24. (From the Author.)

The great enemy against whom Professor Paine volunteers to defend the Medical profession, is Dr. J. N. Davis, in connection with the New York State Medical Society. The former, who is styled "a young man in the township of Bing-

hampton," having originated the plan for a National Convention, adopted by the latter, in which Professor Paine thinks he has discovered a jealousy of the existing medical schools. He particularly objects to the suggestion which has been made, of the propriety of increasing the term of instruction in our Medical Colleges. "It is oppression towards the poor for the sake of crippling our Medical Colleges," and again, "there is an *aristocratic* feature in this movement of the worst omen, however the spirit by which it is prompted may belong to the agrarian policy." The Professor is of opinion that the medical profession is pretty well off in this country, much better in regard to its "practical habits" and "successful treatment of disease," than any other country whatever, although he admits that "such evils" (as those complained of) "exist, * * and I also agree as to their becoming appropriate subjects for united deliberation."

Whether such a spirit as that ascribed to the State Medical Society actually exists, we have no means of knowing, but should not be at all surprised to find it were so. Not having means of competing on equal terms for the chairs in medical schools, it seems to us quite natural that the "young man in the township of Binghamton," and other young men in different townships, should think that there were some improvements still to be made in a country where each citizen is entitled to equal rights and privileges. On the other hand it is not surprising that those who hold high and profitable situations in the medical schools, should see little to be done in the way of improvement.

Let there be established a system of *concours* or public trials, where all may enjoy equal advantages in competing for valuable situations, and jealousies of medical schools will cease to exist. Holding the interests of the great body of the profession above that of schools or societies, (if they conflict,) thinking also, that however advanced we may be, *progress* should still be our watchword, we have desired to see assembled a body like that contemplated, composed of members from every part of the country. Whether its action will be beneficial or otherwise must be seen and judged of by the medical public at the proper time.

In the mean time, without feeling any direct interest in the controversy likely to ensue, we think the author of this address assumes a position which he is not entitled exclusively to occupy, for we are happy to know that there are many even in the far west who are not surpassed in zeal for the true "honor and dignity of the profession." "And now, *again*, gentlemen, for the third time, I stand up *alone* in the broad expanse of America, in an open defence of the honor and dignity of the profession." D. B.

PART IV.—EDITORIAL DEPARTMENT.

ARTICLE VII.

We present our Journal, to our readers, in the present No., in a new form, much enlarged, and, we hope, in every respect, more worthy of their patronage. We have long felt that our space was too contracted to allow us to do justice, either to the advance of Medical Science, or to our readers. At length, in accordance with the expressed wish of a large number of our subscribers, and our own long cherished desire, we feel warranted in extending our limits threefold; and that our contributors may not experience the necessity of condensing into a compass, too small to do justice to their subject, the communications with which we hope to be favored by them, we have thrown two *monthly* numbers into one *bimonthly*, each containing 96 pages. This will afford us ample space for the discussion of all subjects of interest that may present themselves. As a number of our subscribers and anticipated contributors are residents of the State of Indiana, in which there has, as yet, no medical journal been issued, and the services of Dr. John Evans having been secured as coeditor, we have altered the title of our journal to express the better its more extended sphere, and will, hereafter, issue it simultaneously at Chicago, Illinois, and Indianapolis, Indiana. Our labor also, will be further divided by the association of *four* coeditors, as seen by our title page. By this division of labor we hope to improve the Journal in spirit and practical value. Additionally, a number of accomplished medical gentlemen in our own and neighboring States and Territories, have kindly acceded to our request to become regular contributors to our pages. By this combination of effort we hope to make our Journal adequate to the wants of the North-Western section of the United States, in which region we have been the first, and as yet, the only exponent of the profession.

J. V. Z. B.

ARTICLE VIII.

NATIONAL MEDICAL CONVENTION.

DR. J. V. Z. BLANEY:

Dear Sir,—In obedience to the last resolution appended to

the accompanying report, I send it to you, hoping that you will give it an insertion in the April No. of the "Illinois Medical & Surgical Journal."

It is now certain that a full Convention will be held, and we hope the Medical College at Chicago, as well as the State of Illinois, will be fully represented therein.

Very respectfully, yours, &c.,

N. S. DAVIS,

Binghamton, Broome Co., N. Y.

The Committee appointed at the last Annual Meeting of the New York State Medical Society, to carry into effect a resolution passed at the same meeting, inviting a National Medical Convention in May next, would respectfully report as follows:

In the early part of last season, the Committee through their Chairman, addressed a circular, containing the preamble and resolutions of this Society, with such comments as were deemed advisable, to all the State Medical Societies and Colleges in the United States, as far as the existence of such Societies and Colleges could be ascertained. And in those States where neither State Societies nor Colleges existed, a circular was addressed to some leading member of the profession, inviting him to take measures for having his State represented in the proposed Convention. Replies to these circulars and letters have been received from the following officers of Medical Societies and Colleges, and private members of the profession, viz: Drs. W. W. Morris, of Dover, Delaware State; A. H. Buchanan, of Tennessee; W. P. Johnston, of Washington City; T. T. Hewson, R. M. Huston, and W. E. Horner, of Philadelphia; Luther Ticknor, of Connecticut; W. H. McKee, of North Carolina; E. H. Pearlee, of Hanover; Paul F. Eve, of Georgia; J. H. Thompson, of New Jersey; J. W. Davis, of Indiana; A. Twitchell, of New Hampshire; J. W. Draper, A. H. Stephens, Willard Parker, and C. A. Lee, of New York; J. Drake, of Ohio; L. M. Lawson of Kentucky; and Professor Carpenter of Louisiana. And delegates have been freely pledged from Societies and Colleges in Maine, New Hampshire, Connecticut, New Jersey, Delaware, District of Columbia, South Carolina, Georgia, Mississippi, Louisiana, Kentucky, Ohio, Indiana, and New York. The medical schools of Philadelphia are the only ones from whom replies have been received, that decline sending delegates and giving a hearty support to the proposed measure. Nearly every medical journal throughout the Union, has also, not only favorably noticed, but warmly commended the proposition for holding such a convention. There are some Institutions from whom no replies have been received, but from information obtained from other sources, there is

good reason for believing that most, if not all these will be represented by the appoitment of delegates, as soon as they are fully assured that the convention *will be* held. It will thus be seen that in far the larger part of the Union, the invitation of the society has met with a prompt and hearty response from the profession; and it is with much regret that we find even a few Institutions declining to to take any part in so important a movement. But when we consider the wide extent of our territory, and the great number of our Institutions, all engaged, we should hope, in a generous rivalry with each other, the expression in favor of a convention, is certainly more unanimous and more promising of good than could have been anticipated. Indeed the leading and influential members of the profession have long felt the necessity of some national action, some central point of influence, around which the active and choice spirits of the whole profession can rally; from which may be made to radiate an elevating, healthful, and *nationalising* influence over the whole country.

Hence it only remains for this Society to carry out the work it has so nobly commenced. The Faculty in the New York University have very generously tendered to this society the use of any room or rooms in their College edifice, that may be desired for the Convention to meet in. Some State Societies and Colleges have already appointed their delegates, while others have expressed a desire that this Society would fix the number to be sent from any one Society or College.

For the purpose of furthering the objects in view, your Committee would respectfully submit the following resolutions, viz:

1. *Resolved*, That the preamble and resolutions, passed by this Society at its annual session Feb. 6, 1845, did not contemplate the appointment of delegates to the National Convention, from county or merely local societies, in those States where delegates *are* appointed by a regularly organized *State* Society.

2. *Resolved*, That as some Societies and Colleges have already appointed their delegates, therefore the number to be appointed by any one of these Institutions should be left entirely to the discretion of the appointing body.

3. *Resolved*, That sixteen delegates be appointed to represent this Society in the proposed National Convention, viz: two from each senatorial district in the State.

4. *Resolved*, That this Society accept the offer of the Faculty in the New York University respecting their *rooms;* and consequently that the members of said National Convention are invited to assemble in the College edifice of the New York University, at 10 o'clock, A. M., on the *first Tuesday* in May next.

5. *Resolved*, That a Committee of three be appointed to

continue the efforts to further the objects of the proposed Convention, and to exert all their influence to make it truly *National* in *composition* and *action*.

6. *Resolved*, That the above Committee be authorized to invite the Superintendants of Lunatic Asylums throughout the several States to attend the Convention.

7. *Resolved*, That the Committee be further authorised and enjoined to send a copy of this report, together with the accompanying resolutions, and the action of this society thereon, to all the medical journals in the United States, with a request that they publish the same on or before the first of April next.

N. S. DAVIS,
JAMES McNAUGHTON, } *Committee.*
PETER VAN BUREN,

Albany, Feb. 3, 1846.

The foregoing report was accepted, and the resolutions unanimously adopted. Sixteen delegates were appointed according to the third resolution; and the above named Committee re-appointed in obedience to resolution fifth.

N. S. DAVIS, *Ch'n. Com.*

We lay before our readers the foregoing report of the committee of the New York State Medical Society, with much pleasure; nor are we at all surprised at the extensive and almost unanimous approval which has been given to the plan proposed. If we consider that a large proportion of the scientific men of the country belong to the Medical Profession—that individually they are possessed of the high respect of the communities in which they reside, while as a body their influence upon the interests, welfare and public mind of the nation is almost unfelt, it must be evident that something more is necessary to bestow upon them as a class, the rank to which they are justly entitled. This we have often in our humble sphere stated. It is *Union*, *Association*,—an organization by which our common wants and interests may be made known and protected.

We look to this Convention to effect these objects in whatever way may appear most feasible after due deliberation. Difference of views is of course to be expected, but these, it is believed, may be harmonized, where the objects to be attained and the interests to be favored, do not clash. There is, nevertheless, a single point in the proceedings of the New York State Medical Society, which it was easy to foresee might give rise to objections, and even prove a source of embarrassment to the action of the Convention. We allude to the ap-

pointment of delegates from each Senatorial district by the central society, instead of allowing these to be elected by the different county societies. That these latter might in some instances claim the privilege of appointing delegates was to be expected, and we learn from the Buffalo Medical Journal, that such is the case. It is not our object to express an opinion in regard to the wisdom or justice of the course adopted by the State Society, we should greatly regret that anything should arise capable of interfering with the harmonious action of the Convention, but do not at present see reason to apprehend such a result.

We have used every effort to have the profession of this State fully represented. At a late meeting of the Trustees of Rush Medical College, Dr. Brainard was appointed delegate, with power to associate with himself any of his colleagues who might be able to attend, and we have urged upon the Medical associations known to exist in the State, the importance of being also represented. To what extent our recommendations have been, or may be effectual, we are at present unable to say. D. B.

ARTICLE IX.

ANOTHER MEDICAL COLLEGE IN PHILADELPHIA.

An Institution with the name of "Franklin Medical College" has been chartered by the Legislature of Pennsylvania, to be located in Philadelphia, making the fourth Medical School in that city. "It is obvious," says the announcement, "that there must be limits to the size of classes that can be usefully instructed in the demonstrative branches of medicine, and those who are acquainted with the Medical Schools of Philadelphia, will recognise the propriety of an extension of the facilities now offered."

We have frequently thought that medical men, who so often complain of the want of respect shown to the profession, should be careful themselves not to set the example. Have there been no physicians in America deserving the honor, that Philadelphia should adopt for her Medical Colleges the names of Jefferson and Franklin, already sufficiently honored in this respect? Certainly Wistar and many other of her sons deserve well to be remembered when new Medical Colleges are

to be christened. The following are the names of the faculty of the new Institution. D. B.

Paul Beck Goddard, M. D., *Anatomy and Histology.*

C. C. Van Wyck, M. D., *Principles and Practice of Surgery.*

Meredith Clymer, M. D., *Principles and Practice of Medicine.*

John Barclay Biddle, M. D., *Materia Medica and Therapeutics.*

David Hunter Tucker, M. D., *Obstetrics and Diseases of Women and Children.*

Levin S. Joynes, M. D., *Physiology and Legal Medicine.*

James B. Rogers, M. D., *General and Organic Chemistry.*

John Barclay Biddle, M. D., *Dean of the Faculty.*

Josepr Leidy, M. D., *Demonstrator of Anatomy.*

ARTICLE X.

Obituary.—Died at Detroit, Michigan, on the 11th ult., Lieut. E. R. Long, M. D., U. S. Army.

The above obituary notice, and the remarks which follow, we extract from the Buffalo Medical Journal. We join with its editor in his regrets, and heartily also in his tribute to the memory of our deceased friend and late pupil. The Profession has indeed lost in him a member whose place cannot easily be filled, and science has lost a votary, but for his too early decease, destined to do much to advance her honor and aid her progress. J. V. Z. B.

"Justice to our own feelings and to the feelings of many of our readers, claims some tribute to the memory of our departed friend, whose decease it is our painful duty to record. Having been a resident in this city for several years previous to the present winter, he has left a large circle of attached friends who mourn his loss with a greater depth of sorrow than ordinarily appertains to the sundering of the ties of friendship by the fell destroyer. Unassuming and gentle in his disposition, scrupulously regardful of the opinions and feelings of others, without the least ostentation or affectation, possessing extensive and solid acquirements, united with a refined taste, he instinctively, as it were, won the respect and affection of all who knew him. We doubt if he ever had an enemy, or fell under the imputation of aught which would appear inconsistent with the most exact principles of justice and honor. They, however, who were fortunate enough to possess his intimacy can best appreciate the loss, which not alone his kindred and

friends, but society has sustained. His life was an exemplification of the domestic, social and christian virtues. These diffused around him a genial influence, while his silent example invited and encouraged imitation.

"The Medical Profession have much cause for regret in his untimely death. Being graduated at West Point, he had been connected with the army for about fifteen years. The profession of arms, however, did not satisfy his wishes. Having a predilection for medicine, he was a diligent votary of its several departments for the last six years of his life. The winter of 1844-5 he passed at Chicago in attendance upon the medical lectures in that city, and received at their close the degree of M. D. As a characteristic instance of his faithful assiduity, it deserves to be stated, that of all the lectures in the several departments (from 5 to 7 daily for a period of four months,) he lost his attendance upon a single one only, and this was accidental! His intention was ultimately to have relinquished his commission, and devote himself to his new profession. He had selected especially the department of medical chemistry, and gave every promise of future usefulness and eminence in that interesting and important branch. Our readers probably need not be reminded that several valuable articles from his pen are contained in the former numbers of this Journal. His health had for many years been delicate, but the disease that proved fatal was typhoid fever."

PART IV.—PROGRESS OF MEDICAL SCIENCE.

REPORT ON THE PHYSIOLOGY AND PATHOLOGY OF THE BLOOD.

ARTICLE XI.

The following remarks upon the elaboration, composition, and relative constituent proportions of the blood; without professing to comprise a synopsis, even, of the most recently developed facts and opinions upon this subjec,t are presented to our readers for the purpose, merely, of calling their attention to the subject, and of showing the importance of making the very remarkable pathological changes that take place in this fluid, a means of diagnosticating and treating diseases.

It is a well known fact, that nutritious subtances taken as food, are, by the process of digestion, converted into a fluid substance called chyle, the composition of which is albumen and saline matters dissolved in water, with fat globules suspended in the fluid.

In its passage from the intestines, through the lacteals, to the mesenteric glands, and thence to the thoracic duct, the chyle undergoes many and important changes; the most remarkable of which is the conversion of its albumen into another organic principle called fibrine. "Albumen, then, may be regarded as the first proximate element; at the expense of which in conjunction with fatty matter all the tissues of the animal body are ultimately formed. Still this organic principle, as long as it remains in a state regarded by chemists as characteristic of it; exhibits no tendency to become organized, and it is only when it has been subjected to certain peculiar vital influences, and, perhaps, undergone a change in its chemical constitution, or, in other words, has been converted into fibrine, that any such tendency manifests itself.

As the consequence of this change, the fibrine increases, and the albumen lessens, whilst, at the same time, the oil-globules undergo an evident diminution. It is not conceivable that the fibrine should be at once formed from the oil-globules, since albumen is much more ready to undergo organization and vitalization, and is always the preceding principle to fibrine. The fibrine must, therefore, be produced at the expense of the albumen, whilst new albumen is elaborated from the oily matter.

The following table presents a view of the relative proportions of the three principle ingredients in the chyle in different parts of the absorbent system, and gives an idea of its advance in the progress of assimulation.

In lacteals, from intestines, to mesenteric glands.	Fat in maximum quantity. Albumen in minimum quantity. Fibrine almost entirely wanting.

In lacteals, from mesenteric glands to thoracic duct.	Fat in medium quantity. Albumen in maximum quantity. Fibrine in medium quantity.
In thoracic duct.	Fat in minimum quantity. Albumen in medium quantity. Fibrine in maximum quantity.

The fluid, drawn from the thoracic duct is frequently observed to present a decided red tinge, which increases on exposure to air. This tinge is due to the presence of true blood corpuscles, smaller, however, than those of the true sanguineous fluid.

As to the composition of the blood then, it may be said to be composed of water holding albumen, fibrine and saline matters in solution, having particles of a red colour floating in the fluid. These, the true blood-globules, are flattened discs, having a circular outline, and composed of three parts, the capsule, the nucleus, and the contained matter, thus constituting a complete nucleated cell. It is a peculiarity in the composition of these globules that they each contain a small proportion of iron: the red colour of the blood is due to their presence.

Blood drawn from the body, and left to itself, soon presents a new arrangement of its organic elements. The fibrine coagulates and separates from the fluid portion, attracting and enclosing in its meshes the red globules, thus forming what is called the coagulum or clot. The remaining portion, designated serum, is composed of water holding in solution the albumen and saline matters.

According to M. Andral, the usual or normal proportions of these different ingredients in the blood, are as follows:

Of each element in 1000 parts,	Fibrine,	3
	Globules,	127
	Solid matter, dissolved in serum,	80
	Water,	790

The proportion of fibrine may vary in health from 2.5 to 3.5, that of the globules from 110 to 140. The clot formed by the coagulation of blood, being dependant for firmness upon the fibrine, and for colour and volume upon the amount of globules, indicates, by its density and more perfect reticulated structure, an exuberance of fibrine, and by its softness, bulk and high colour, a comparatively large proportion of globules.

Blood coagulated slowly, and in which the proportion of fibrine is large, as compared with the globules, permits the colouring matter to settle to the bottom of the clot, thus leaving a nearly colourless layer of fibrine upon its surface, long since known to physicians and described by writers as the *buffy coat.* In cases where the proportion of fibrine is large, and the coagulum firm, it presents a concave or cupped surface.

All the organs of the body being dependant upon the blood for nutrition and support, are, consequently, deranged in their functions and subject to change of structure whenever this fluid becomes deteriorated in quality, or changed as to the relative normal quantities of its constituent proportions.

Among the most important and easily detected pathological changes which take place in the blood, are those resulting from a want of the due proportions of its elements, such as an exuberance or deficiency of globules, increased or diminished amount of fibrine, want of albumen, saline matters, &c.

Of the abnormal conditions and diseases of the system, in which such changes in the constituent proportions of the blood are most apparent, may be enumerated Plethora, Anæmia, Pyrexiæ, Phelgmasiæ, Hemorrhages and Dropsies.

Contrary to the generally received opinion that the peculiar condition of the system in plethoric individuals depends upon exuberance of blood, it appears from the researches of Andral, that the marked peculiarity of this fluid in the above named condition of the system, is an increase in the amount of its globules. In 31 bleedings of plethoric subjects, in each of which an analysis of the blood was made by this distinguished pathologist, the average amount of globules in 1000 parts was 141, the normal quantity being 127. Hence it is that the blood of such persons is high colored, presenting, after coagulation, a comparatively small amount of serum, a voluminous clot filled with fluid, and soft for want of fibrine, but never incrusted with the buffy coat.

Coincident with an excess of globules in the blood of the plethoric, there are certain physiological and pathological phenomena dependant, as it seems, upon this peculiar condition of the fluid. All the functions of life are more active, digestion quick, respiration full, circulation rapid, with a degree of general excitability of the whole organism; thus showing that the blood of plethoric individuals is highly exciting, and of a stimulating character. This truth is made more apparent also, by the fact, that such persons are subject to vertigo, dizziness, ringing in the ears, &c., symptoms produced, without doubt, by the passage of an excessive number of globules through the brain. Plethoric persons are, also, more liable than others to active hemorrhages and apoplectic effusions, the result, evidently, of the absence of the due proportion of coagulable matter in the blood.

By blood-letting, abstemiousness, and general antiphlogistic treatment, the number of blood-globules are readily diminished.

It appears, then, that an excess of the globular element of the blood is a constant distinguishing characteristic of plethora; a fact leading to the inference of that, which is in reality true, viz: that in anæmia,—a condition of the system directly oppo-

site to that of plethora,—the amount of globules falls far below the natural standard.

This anæmic condition of the system, is characterised by paleness of countenance, general muscular debility, nervousness, neuralgia, vertigo, dispnœa and palpitations of the heart upon the slightest effort.

An example of spontaneous anæmia, in which most of the above named symptoms are always present, is that not uncommon but peculiar disease of females, chlorosis.

This want of the globular element in the blood is often the effect of debilitating diseases and profuse hemorrhages. Pregnant women, also, during the last months of gestation, often become anæmic. Andral observes, "I have found as the average of the proportion of globules in 16 cases of commenceing anæmia, the cipher 109, and in 24 cases of confirmed anæmia the cipher 65"—127 as above stated being the normal quantity.

The physical properties of the blood drawn from anæmic patients is perfectly characteristic of its condition. For want of globules the coagulum is small, and swims in a large amount of perfectly colourless serum; but, as there is no want of fibrine, it is firm and generally presents upon its surface a well marked buffy coat, resulting from the absence of globules in this upper stratum of the fibrinous mass.

Thus it is seen that the presence of the buffy coat is not always a diagnostic sign of inflammation, since it appears upon the blood of patients whose general condition, evidently, requires a course of treatment directly the opposite to that, generally considered to be most efficacious in the phlegmasiæ.

In order to increase the amount of blood globules and thus restore the blood to its normal condition, those means are to be employed which are generally believed to give tone and vigour to the system, such as nutritious food, fresh air, exercise and tonics, of which, the preparations of iron are most effectual.

As an example of the good effects of proper treatment in such diseases, Andral mentions the case of a young lady, who, in 3 months, had the amount of globules so much increased as to present a change in that short space of time, from a confirmed anæmic to a well marked plethoric condition.

The *pyrexiæ* are another class of diseases in which the change in the blood, if not so well marked and defined, are still of great practical importance as indications for diagnosis and treatment.

These affections being characterised like the phlegmasiæ, by general febrile excitement, an attempt has been made, by several distinguished writers, to make it appear that the fever attendant upon them is always symptomatic of local disease, and that they should all be classed together with simple inflammatory affections.

"Such pretensions," remarks Andral, "cannot be maintained. The pyrexiæ exist as diseases apart; the causes which often develop them, the symptoms which characterize them, the special nature of the alterations which they produce in the solids, are already enough of grave reasons for not confounding the pyrexiæ and the phlegmasiæ;" "but the analysis of the blood comes still more to establish a very remarkable difference between the one and the other class," for "in the phlegmasiæ there are always two constant alterations which march together, that of the solid and that of the blood, it is no longer the same in the pyrexiæ; in these diseases in reality, the only phenomenon which never fails, is the fever itself."

But although it is true as above stated, that the pyrexiæ may exist without any appreciable alteration in the solid or fluids, yet there never is in these, as in inflammatory diseases, an increase in the amount of fibrine. On the contrary, this organic element, even in the milder forms of these diseases, is generally diminished, and in well marked cases, it is not only uniformly lessened in quantity, but becomes deteriorated in quality, as appears from the imperfect structure of its coagulum.

Blood drawn from an individual suffering under the influence of typhus, typhoid, miasmatic fevers, or other forms of pyrexiæ, coagulates slowly. The fibrine, being small in quantity, and of an inferior quality, the clot is voluminous, imperfectly separated from the serum, soft and easily broken; in fine, the blood of such persons presents appearances indicative of low vitality, and a want of coagulable matter.

In the above described morbid condition of this fluid, there being a diminished amount of fibrine, but, at the same time, a normal quantity, or a relatively increased proportion of globules, the buffy coat, resulting, as before stated, either from an exuberance of the former, or a paucity of the later element, is never present.

This affords another important distinguishing characteristic between the phlegmasiæ and pyrexiæ. "I may affirm," says Andral, "that I have never met with it (the buff) unless there was phlegmasial complication, either in slight or severe typhoid fever, in measles, in scarlatina, or in variola."

As the result of a want of fibrine and a normal tendency to coagulation in the blood in the advanced stages of the adynamic or putrid type of the pyrexiæ, it has a tendency to exude from its vessels; hence the effusion of blood into the pustules in variola, the hemorrhages in malignant scarlatina, and the epistaxis and bleeding of the gums in the advanced stages of severe typhus and typhoid fevers.

The numerous sanguineous congestions in this class of diseases, mistaken often, for inflammations, are evidently the

effects of the absence of a due proportion of coagulable matter in the blood. The enlargement and softening of many organs, as the spleen, are also, the effect, many times, of an accumulation of such blood in their structure.

As to the origin of the pyrexiæ, it may be said, that it is by no means probable that the want of fibrine is the primary cause of these diseases, for it seems incontestible, "that the specific cause which gives them birth, acts upon the blood in such a way, that it tends to destroy its spontaneously coagulable matter." "If this cause acts with slight energy, or if the economy resists it, the destruction of the fibrine is not accomplished; if, on the contrary, the cause continue to act with all its intensity, and the forces of the organism be in fault, the destruction of the fibrine will commence either at the very beginning of the disease, which is very rare, or a certain period after its commencement: all this applies itself equally well both to the typhoid fevers, and to the eruptive fevers."*

It is a fact well known to the profession, that there are but few diseases of the class pyrexiæ, for which we have remedies of known efficacy; and it is equally true, that of the means of restoring the blood, in these diseases, to its normal condition, we are equally uninformed. It has been suggested by some, that the administration of such agents as favour the coagulation of blood, such as acids, &c., might prove beneficial.

We now pass to the consideration of another, perhaps the most important class of diseases—the phlegmasiæ,—which, though characterized by general febrile excitement like the pyrexiæ, present at the same time, a directly opposite condition of the blood.

Meckel has defined inflammation to be "congestion with a tendency to new production." This definition is, probably, as nearly correct as any that can be given; for from the very beginning to the termination of every inflammatory affection, there is a constant tendency in the blood, in proportion to the extent and severity of the disease, to the production and increase of its fibrinous element. The augmentation of the quantity of fibrine is so constant a sign of inflammation, that if we find more than five parts in 1000 in the course of any disease, we may positively affirm that some local inflammation exists.

During the active stage of inflammatory diseases, blood drawn from the patient presents all the characteristics indicative of an increase in the amount of fibrine. The coagulum is small, but firm, and comparatively free from serum, presenting, in most cases, when properly drawn, a well marked buffy coat, with a concave or cupped surface. The buffy coat then; excepting in anæmic conditions of the blood, where the amount

*Andral.

of fibrine, not being actually increased, is large only as compared with the diminished proportion of globules; always indicates an increase in the fibrine, and consequently the existence of some inflammatory affection.

The condition of the system, at the time of an inflammatory attack, seems not to influence the consequent increase of fibrine. A person may be exhausted by chronic disease, or present a confirmed anæmic condition, yet, upon the accession of an inflammatory affection, there is in these, as in other cases, as constantly an increase of this constituent. In chlorotic patients, for instance, who have been attacked by acute articular rheumatism, bronchitis, pneumonia or erysipelas, the blood has been found to contain 6, 7, and even 8 parts of fibrine; and in cases of the pyrexiæ even, such as typhoid, typhus and miasmatic fevers, causing a diminution of fibrine, if, in the course of the disease, there supervenes an inflammatory affection, the amount of this element is always increased; thus presenting two forces acting upon the blood, one to diminish, the other to increase the proportion of this, its spontaneously coagulable element.

We may mention in this connection a curious fact, established by Gavarret, that the blood of animals, dying of hunger, shows an increase in the amount of fibrine, an effect, as appears from examination, of inflammation of the coats of the stomach.

As to the comparative increase of fibrine, in inflammation of different tissues, it may be remarked, that of all diseases, pneumonia and acute articular rheumatism, are those in which the augmentation of this element is the greatest; the amount of fibrine in these affections often rising to the proportion of 10 in 1000.

In slight inflammation of the mucous membranes, unattended by febrile excitement, there is little or no appreciable change in the blood; but whenever the local disease becomes sufficiently intense to produce general reaction, the proportion of fibrine is found simultaneously to increase. It may in truth be stated, as a general fact, that independant of the organ affected, the accession and continuance of the accompanying fever bears a close relation to the constantly progressive changes in the sanguineous fluid. It seems not unreasonable to suppose, then, that the blood, circulating as it does through every organ and tissue of the body, thus surcharged with an undue proportion of its fibrinous element, produces that morbidly excited condition of every part, termed sympathetic fever.

The blood of individuals affected with mercurial ptyalism, presents always an increase of its fibrine, in proportion to the extent and severity of the inflammation. To illustrate, we give the following brief synopsis of three cases recorded by

Andral. In the first case, profuse salivation was produced by 18.5 grs. calomel, augmenting the proportion of fibrine in the blood to 4.5. In the second case 9.5 grs. of calomel gave rise to very acute inflammatory action, increasing the fibrine to 5; and in the 3d case, more violent inflammation was produced than in either of the preceding, by the combined internal and external use of mercurials, raising the proportion of fibrine to 8.4.

Thus we see, that inflammation produced by mercury, appears not to differ in its effects from that produced by other causes. This fact may lead some to doubt, with good reason, the propriety of producing salivation in acute inflammatory diseases, and thus adding to the amount of fibrine already too abundant. It seems not, however, to contraindicate the more moderate use of the mineral, for it appears that the inflammation, not the medicine, caused the morbid change.

On the other hand, there seems to be some slight indication in the above fact, for the production of ptyalism to restore fibrine, and thus supply the deficiency in the pyrexiæ, such as typhus and typhoid fever.

Mercury is a remedy which has been, and is still used and recommended by practitioners, empirically, as it would seem, unless the above is a good reason for its use. Let us not, however, form hasty conclusions upon this point. In our contentions with disease, plausible reasons may justify the trial of a remedy, but favorable effects only recommend its general use.

Inflammations of the skin, from severe burns, erysipelas, blisters, &c., give rise also, to augmentation of fibrine in the blood. This fact suggests the probability, that the consequent increase of this element in cutaneous inflammatory affections, may be the principle and perhaps only reason, why blisters and other severe external irritants increase the sympathetic fever, and thus act unfavorably in the acute stages of these diseases. It may be true also, that the well known good effects of these remedies, in fevers of a typhoid type, and in old chronic affections, are, in part, the immediate results of an increase of fibrine, consequent upon the inflammatory action thus artificially produced.

It seems then, that inflammation, whatever may be the causes and circumstances attending its accession and continuance, appears and advances in most cases, simultaneously with the production and increase of this constituent of the circulating fluid.

As an exception, however, to the general rule, that increase of fibrine is accompanied with inflammatory action, it may be remarked, that pregnant women, during the last months of gestation, present blood, containing this element in a much higher proportion than the normal standard, varying for in-

stance, from 4 to 5 in 1000 parts. It seems then, that "the blood on these occasions shows a remarkable tendency to assume the character of inflammatory blood; and assuredly there is matter for reflection in the relation which may exist between the modification then affected in the blood, and the development of those peculiar attacks, generally of an inflammatory aspect, to which women in child bed are so liable."

As to the treatment of inflammation, it may be remarked, that the condition of the blood in these diseases seems to indicate the employment of such means as tend most directly to diminish the amount of its fibrinous element. Unfortunately however, no agent is known to the profession by means of which we can produce this effect promptly, and to such an extent as to give us unmistakable evidence for or against this apparently legitimate conclusion.

Venesection has been found, by experience, to be one of the most effectual means of moderating and checking the progress of the phlegmasiæ. The most obvious effect of bloodletting, is that of abstracting a comparatively large proportion of the blood's most stimulating element, the globules. It acts favorably also by lessening, in common with the other ingredients, the exuberant fibrine, and thus removing, to some extent, the apparent cause of febrile action; and lastly, by diminishing the amount of blood circulating and thus favoring the absorption of fluids, it causes a dilution, and consequently, a more general diffusion of all its constituents. Cathartics, low diet, and most others of the class of antiphlogistic remedies, produce their beneficial effects, very probably, by diluting and diminishing the active constituents of the blood, and thus rendering this fluid less stimulating to the system generally, and to inflamed organs in particular.

Since the establishment of the important truth, that excess of coagulable matter is a distinguishing characteristic of inflammatory blood, it is said that well marked favorable results have been obtained from the administration of remedies, such as alkalies and other chemical agents, the well known effect of which, is to retard the coagulation of blood, and, as is believed by many, to prevent the rapid formation of fibrine. Nitrate of potash, for example, is a well known effectual remedy in this class of diseases, which, as it prevents the coagulation of blood after it is drawn, and even, in the vessels, when injected into the veins, may depend, in part, for its beneficial effects in disease, upon this property.

In concluding these remarks upon the phenomena cöincident with a pathological condition of the circulating fluid with regard to the fibrine, it may be stated, that among the most important of these, is a spontaneous tendency to loss of blood —the concomitant always to a deficiency of the coagulable as compared with its globular element.

It appears from facts before stated, that this want of normal proportions between these constituents is present in two apparently opposite conditions of the system—the plethoric and typhoid—in each of which, the blood presents the peculiar characteristics of excess of globules in the former, and deficiency of fibrine in the latter condition. Hence it is, that hemorrhage may be either active or passive, according as it occurs in one or the other of these abnormal conditions of the circulating fluid.

In plethoric persons, bleeding at the nose and other hemorrhages, if not profuse, or in such locations as to interfere with the vital functions, often relieve the unpleasant symptoms to which, as before stated, these individuals are sometimes subject. This is because a bleeding or hemorrhage, if not carried beyond a certain point or excessive, diminishes the globules proportionally more than the fibrine, and thus for a time, removes the plethoric condition; but if, on the other hand, the abstraction of blood be carried too far, or if the active hemorrhage continue long and profuse, the fibrine begins to diminish at first, to the same, and afterwards, to a greater extent even than the globules, thus presenting at length, a condition of the blood, in which there is a deficiency of fibrine as compared with the globules, and thus changing its condition from that productive of a comparatively harmless escape of excess of globules, to that coincident with the more obstinate and dangerous disease, a passive hemorrhage.

From remarks, which have preceded upon this subject, it appears that the condition of the blood, favorable to passive hemorrhage, is present in the advanced stages of all the most malignant pyrexiæ, and as an effect of this morbid condition we have in these diseases, effusion of blood into the tissue of organs and under the cuticle, producing engorgement and petechial spots and patches; hemorrhages both internal and external; collections of blood in the cavities, and frequent bleedings from the gums, nose, rectum and other parts.

Thus we see that a loss of the fibrine of the blood is one of the most disastrous in its effects of all its pathological changes, a truth calling loudly upon the profession for some means of preventing the destruction of this important element.

No remedy is known, however, of sufficient activity and promptness in its effects, to modify this condition of the blood, to any appreciable extent, in the most malignant forms of this class of affections. It is evident then, that our attention, for the present, should be directed to the first stages, and milder forms of these diseases, and to the nature and mode of action of those remedies which have been found most effectual in these more simple cases, where their effects can be seen and appreciated.

In all of the more chronic and milder forms of this class of

diseases, with blood deficient in fibrine, such as scurvy, &c., more or less, of the following symptoms, always present themselves: pale, livid and dusky countenance, petechiæ, ecchymoses, soft, swollen and bleeding gums, debility, general numbness, heaviness of the head and vertigo. Blood drawn from an individual with such symptoms, coagulates slowly and imperfectly, the clot is, generally, large but soft, and often in separate fragments, never however presenting the buffy coat.

As to the therapeutic agents to be employed in diseases of this class, it may be remarked, that the causes, giving rise to them, as well as certain attendant conditions of the blood, give us some important indications.

The causes which most commonly give rise to this abnormal condition of the blood, are a damp and vitiated atmosphere, insufficient and improper food, such as that deficient in albumen and fibrine, the excessive use in food or otherwise of neutral salts or alkaline substances, such as common salt, salæratus, &c. Of the bad effects of the last named class of chemical substances, we have ample evidence in the condition of the blood coincident with a loss of fibrine.

It is true, that the loss of a large proportion of the blood's coagulable element in these diseases, is the change made most appreciable by chemical analysis. "But is this the ultimate alteration we are permitted to arrive at? Before the fibrine decreases, has there not been some other change of composition in the blood, of which the depression of fibrine below its normal average is itself only the consequence? Upon this subject some facts may be cited. It may be remarked, that on throwing into the veins of living animals, a concentrated solution of subcarbonate of soda, an almost fluid blood was found in the bodies of these animals when dead, and that during life, their symptoms were analogous to those observed in diseases, in which the older writers admitted a state of dissolution of the blood. It may also be remarked that some authors declare, that they have found an excess of alkaline matters in the imperfectly coagulated blood of persons who died of low fevers or scurvy."* It is also true that blood drawn from patients with scurvy and other diseases, depending upon the same cause has presented the same characteristic.

It would appear then, that the treatment indicated in such cases, is to counteract the influence of the above named causes, by introducing in their place, an opposite train of influences, such as exercise, uncontaminated air, a plentiful supply of nutritious, nitroginized food, and the displacement of alkaline ingesta by acid substances.

That the acids act favourably in these diseases, by neutralizing the excess of alkaline constituents in the blood, and favouring its coagulable tendency, is a view of their modus operandi

* Andral.

of recent date. Whatever may be their mode of action, however, there can be no doubt with regard to their utility, or of the good effects of the general treatment above described, numerous results and long experience having established its efficiency.

In conclusion, it may be remarked that deficiency of albumen, is another very important alteration, not yet referred to, in the relative proportions of the blood's constituents, concomitant, always, with a tendency to dropsical effusions. Want of space however, compels us to defer, for the present, a consideration of this part of the subject. We hope, however, that the preceding partial exposition of some of the more modern, but generally adopted views, with regard to the composition and different conditions of the blood, imperfect as it is, and too limited for an exposition of the relation of facts referred to, may serve to direct attention to the importance of the subject and to the interesting facts and conclusions, which several distinguished men, now engaged in its investigation, are, from time to time, communicating to the profession.

W. B. H.

PART VI.—ECLECTIC DEPARTMENT.

1. *Paralysis.*—The following remarkable case of paralysis, is extracted from the thirteenth annual report of the Massachusetts State Lunatic Hospital, published in November last, by Samuel B. Woodward, M.D., the able and accomplished physician to the institution. It is related to show the derangement of mind, from disease of the external senses, and is interesting, both in a pathological and psychological point of view. Since the publication of the report we learn that the unfortunate sufferer has been relieved by the hand of death. E.

E. A. M., an orphan girl aged 15 years, was admitted to the Hospital, December, 1844. She had had chorea, and has been for sometime melancholy, and effected with headache and great distress in the eyes, which, at such times appeared prominent and distorted. When the paroxysms of headache were over, the eye assumed nearly a natural appearance. For some time she apparently improved, the paroxysms were less severe, and her general health rather better. At this time she began to occupy herself in active domestic employment, she was most of the time cheerful, and we had strong hope of a radical amendment.

These paroxysms did not wholly subside, and when they did occur, she was a great sufferer, and felt gloomy and desponding. She had amenorrhœa, and was inclined to constipation, had bad appetite and sleepless nights. In the intervals of these paroxysms, she was cheerful and active, but would usually say her head ached if she was questioned as to her health.

Some time in March, the disease manifestly increased, the paroxysms became more severe and protracted, and the gloom and despondency increased. In the latter part of April her sufferings were greatly aggravated, the suffering in her head became agonizing, and her sight was greatly impaired. She took no notice of those about her unless touched by them, when she seemed much frightened, but did not speak. During the month of May, she was extremely ill, confined most of the time to her bed. She had severe spasms and excessive head ache, laid nearly senseless, moaning and suffering extremely, often tearing her hair and beating her head with great violence. With the exception of moving her hands, she seemed entirely paralyzed. In this state she continued some weeks apparently near dissolution. She took very little food and emaciated rapidly. Early in June she recovered her speech, and we then ascertained that she was entirely blind and deaf, and had lost the senses of smell and taste. She was entirely

unconscious that she was at the hospital, talked to her brothers and sisters as if they were present, and complained in the bitterest terms, that they would not answer her questions, or in any way communicate with her. She had no idea that she was deaf, and it was truly heart-rending to hear her exclaim, "why will you not talk to me—all is silent as the grave—what have I done that you will not speak to me?" For hours together she would address her friends in the most plaintive and imploring language, begging for one word, even if it was that of unkindness. At times she imagined she was a captive among some barbarous people who could not understand her language, and frequently asked if there were no missionaries among them who could serve as interpreters.

While in this condition, after trying various remedies it was thought advisable to try the effect of galvanism. The battery was got ready and the fluid applied gently to her hands, when she became agitated in the most extraordinary degree, her countenance flushed, her eyes glared open and her expression the wildest conceivable, while she continually screamed, "don't bury me alive, don't bury me alive—I am not dead, I am not dead." Never did I witness such a scene—every avenue of communication with her was cut off, and for twelve hours she screamed without intermission, declaring that she was not dead, and begging most imploringly that we would not bury her alive. Too late we found that we had excited a storm which we could not calm; there was no way in which we could soothe or pacify her in the least degree. When completely exhausted, she became quiet and slept. For some days she would start, and appear frightened by the slightest touch. She gradually got better of this excitement and appeared much as she had done for some weeks previous. During all this time, she did not recollect any thing of the hospital or its inmates. She called those about her by the names of her absent friends, myself and assistant she recognised as physicians who had attended her some years previous; her nurse she called by the name of her sister. When I visited her, she would say, "Doctor, why do you not speak to me, you used to be so kind and pleasant, and now you are as silent as the rest; do Doctor, speak one word to me." She improved slowly and favorably till about the middle of June, had taken morphine, submuriate of mercury, the arsenical solution and some laxative medicines, had also had blisters on her temples. Much of the time she swallowed with difficulty, so that food and medicine were given irregularly. On the 17th of June, she again lost her speech, but communicated in a very limited manner by general signs. If thirsty, she would place her fingers on her lips; if she wanted air, she would make the motion of the fan. With this increase of symptoms, she had frequent pulse, dry skin, dry tongue, soreness of the

throat, and great difficulty in swallowing. On the 20th of June, for the first time during this long illness, she seemed to have some idea of the hospital, and those who resided here, and by some external mark or peculiarity of dress, recognised a few individuals with whom she had previously been intimately acquainted.

When she first came to the hospital, sad and unhappy, she and another young lady who was equally melancholy, were in the practice of sitting together in their rooms and weeping as they rehearsed their grief. Ascertaining this to be the case, I directed their attendants to prevent such interviews alone, and separate them if thus found talking together. To avoid scrutiny, they learned the manual alphabet and communicated with each other on their fingers quite freely. This was unknown to me at the time, but now it was thought of by the young lady, who was nearly recovered, and she made an attempt to communicate with her upon her fingers. After a time the experiment succeeded, and she learned for the first time that she was deprived of her external senses.

She thought that she had been for a long time in a dark, dismal place, where the people did not talk, and where they drank but did not eat. Early in July, she again lost her speech for forty-eight hours, and during that time was exceedingly sensitive and easily agitated. The slightest touch would alarm her, and bring on trembling; fanning agitated her, and the least motion of the bed clothes would excite and disturb her.

Till the sixth of July, the senses remained lost. Various experiments were tried with her to satisfy us that they were entirely gone. She drank vinegar as water, took a tea spoonful of cayenne pepper as she would take so much bread, without noticing it in the least. On the 7th of July, the sense of smell was suddenly restored and she enjoyed the fragrance of flowers and other perfumes. This was the first restoration of any of the external senses, and it remained but a short time. For some days she had been very comfortable and seemed to be improving favorably. On the night of the 12th, the nurses were awakened by her groans, and found her in a state of great trepidation and alarm, which was only increased by every attempt to soothe her. When any one touched her, she would spring away in great fear, her eyes staring, and her whole frame trembling with agitation. In the afternoon of the next day, she became more composed and was able to recognize a few friends, but had entirely lost her speech. When she recognized any one, she would seize hold of them with a convulsive grasp, and by familiar signs of recognition, and great animation of countenance, would show the joy and satisfaction she experienced in meeting them. When these paroxysms have left her, she has usually supposed that she

has been away to some dismal place, "down, down, down." When she meets her friends after the illness has passed, she says with great animation and expressions of delight, "got back, got back." At this time, she communicated readily with her fingers, and many of her friends learned her language. Her sense of touch was very acute. She read with ease the lettering on books, and the books for the blind. Her mind was very active, and her memory retentive. She walked about with some assistance, and gains strength and health between these paroxysms. She talked much with her friend J——, who had recovered, and was employed to converse with and take charge of her. When she is in one of her paroxysms she is dull, understands but little, and often loses her memory of every thing. Her smell repeatedly returned for a short period, but was soon gone again; so far as we have been able to discover, she has been totally blind from the first, and deaf since the first loss of hearing. She has repeatedly come out of these paroxysms with some delusion upon her mind. Once she supposed that her mother had visited her and brought her ornaments, which had been lent her; these she afterwards claimed as her own. For a long time, this impression remained, though her mother died when she was two years old. In the intervals of these paroxysms, she is sensible and rational, very quick in her discernment, and greatly disposed to mirthfulness.

Early in August, when she was in this comfortable state, she was frightened by some one coming to her room and taking hold of her. She was so much agitated by this, that the slightest touch, for a number of days, would alarm her. Her trepidation on this occasion was so great that she could hardly be persuaded to take her food or drinks, every communication frightened her so much. She again recovered from this fear, and was cheerful and happy. She took much pleasure in knitting and was very industrious.

On the 12th of August her friend J. left her. She had been most kind and faithful to her, and her departure was a cause of great grief; they were mutually attached, and both felt sad at the separation. Her attachment to J. was very strong, and whenever her name was communicated to her, her countenance brightened and she was full of animation and joy. Soon after this good friend left her, our patient was removed to the family apartments, where she has since remained.

On the 14th of August she had another paroxysm, which is thus described by one who was with her. "Her face assumed a singular expression, her eyes rolled wildly, and when I attempted to speak with her, I found she did not notice at all. She kept my hand but would suffer no other hand to touch her without an expression of horror. She trembled constantly, started frequently, and seemed to be in the greatest fear. In

about an hour she became more calm and slept. It was thought best to place her in bed, as she was not in a comfortable position. When touched for this purpose, she manifested the greatest agitation, and screamed in the most frightful manner, resisting with all her power. When finally placed in bed, she crouched close to the wall, trembled so as shake the bed, and with every breath continued those dreadful screams. After an hour she became more quiet and slept again. When she waked she felt about to ascertain where she was, examined the hands of her watch to tell the time, and recognized the friend who was with her. She moved her hands about in an awkward manner as if she had some idea of having communicated with them. When we attempted to talk with her in the usual manner we ascertained that she had forgotten her alphabet; she had also forgotten how to knit, though she was knitting when the paroxysm came on. After a few attempts she succeeded in writing her wants on the slate, and in the course of the day learned her alphabet again, and was able to knit." As usual, she supposed that she had been away during the paroxysm, said she was "so glad to get back," and would never go away again. She did not enquire for any one, and was much afraid of being touched. She had been intimately acquainted with many persons in the house, but now seemed to have forgotten them all, and for a considerable time could not be made to understand who they were. After a few days she recollected that there were three physicians here, and gradually regained her knowledge of other friends.

For many days in the latter part of August, she was quite ill, suffering from palpitation, head ache, and severe neuralgia. After these symptoms had continued some days, she began to lose the use of her lower limbs; they were very painful, and she attempted to walk, tottered and repeatedly fell. Early in September she lost the use of them entirely, and all sensibility in them. For a time they were perfectly cold and white, as if dead, and pins or needles thrust into them produced no impression. They have since appeared more natural, but are yet insensible. At this time she very suddenly regained her senses of smell and taste, and was made very happy by it, thought her other senses would soon be restored, and indulged in many pleasing anticipations. Soon after this she began to articulate a few words, though in an imperfect manner; she was not conscious of it, and when told that she had really spoken, her delight was unbounded, she repeated the words continually, and daily added to their number.

She was now very happy, could taste, smell and talk considerably. Her feeling was also very acute, so that she could not only read the books for the blind, which she did readily,

but coins, seals and engraved visiting cards. She was very industrious and employed herself in knitting purses, making worsted mats and sewing. The articles thus made she sold to visitors, and took great pleasure in counting her money and shewing it to her friends. She prepared some articles to be exhibited at the Fair in October, and was much delighted when she learned that she had obtained a premium for them. She was much interested in all accounts of the Fair, and the descriptions of the articles there exhibited. The evening after the Fair she attended a dancing party, which was got up for the patients, and though she could neither see the dancing nor hear the music, she enjoyed it greatly. She could feel the motion of the floor, and took the hands of the dancers as they passed her. Examined their dresses, inquired of all her associates who they had for partners, and seemed quite the happiest person in the room.

At this time she wrote to her brother that she was "as happy as the day is long." She remained in this state of enjoyment and good health till the 20th October, when she again became ill and for several days was in intense pain. She had severe palpitation, and the pain about the heart was very violent, her eyes were much swollen and inflamed, and the distress in her head very great. Much of her pain seemed to be neuralgic, and she suffered apparently beyond human endurance. Large doses of morphine only afforded relief, and these often repeated. For many days her life was in jeopardy, and it seemed hardly desirable that she should again recover. Her distress gradually subsided, but we found that she had again lost her speech, and with it, all feeling in her hands; they were entirely useless. Her situation was now more deplorable and hopeless than ever. The only medium by which she had been able to communicate with those around her, was now withdrawn, and existence was a burden. She could not speak as in her first attack, for she was now dumb; she could not recognize her friends by the sense of touch, for her hands were paralysed. She could see no one, hear no one, feel no one, and she constantly suffered the most agonizing pain. Her friend watched her with increasing vigilance and solicitude, and as she was relieved from suffering, she commenced teaching her an alphabet on her face. By untiring perseverance, she succeeded in communicating to her simple ideas in this novel manner. While this experiment was going on successfully, the sensibility of her hands was at once partially restored, and she was again able to converse in her usual manner.

From this severe illness she gradually recovered to her former condition, except that the acute sense of feeling which she had long had in her fingers, did not return, and she has since been unable to read even the raised letters of the blind.

During the month of November, she has been very comfortable most of the time, has had considerable head ache, and gets easily fatigued, yet she is ever cheerful and happy. For some days previous to the annual thanksgiving, she was anticipating the pleasures and festivities of that occasion, and when the day arrived she was full of enjoyment. She dined with her friends, and in the evening enjoyed the dance as much as before. She now spends her time in knitting, sewing, writing and playing games. In her chair on castors she moves about from one place to another, enjoying the salutations which she every where meets, and though quite blind, deaf and dumb, and unable to walk or read, she has much real pleasure, is ever patient, cheerful and thankful to those friends who meet her with affectionate kindness and sympathy, and grateful to her Heavenly Father for so many favors and blessings in the midst of all her privations and sufferings.

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2. *Method for detecting the presence of a minute quantity of Bile in the Animal Fluids.*—The ordinary method pursued for the purpose of detecting the colouring matter of bile (biliphæin of Simon, *choleptyrrhin* of Berzelius) in fluids supposed to contain it, consists in adding a portion of nitric acid to the suspected fluid, when, if bile be present, there is immediately produced a beautiful green colour, which by degrees becomes changed successively to blue, violet, red and yellow. It is essential, however, that the quantity of bile should be considerable, in order that these various changes of colour should take place on the addition of nitric acid; if the quantity is but small, there is only produced a greenish colour, which shortly becomes changed to yellow without passing through the degrees of blue and red, for the production of which the quantity of bile present is not sufficient. Dr. Heller,* moreover, observes, that he has frequently known bile to exist in urine and other fluids without its presence being indicated, or any change of colour effected by nitric acid in the ordinary way of applying this test. He states, however, that if any fluid in which bile exists, contains a portion of albumen, the nitric acid, by coagulating the albumen, will detect the smallest possible quantity of bile, for the coagulum assumes at once either a bluish, or perfectly blue, or greenish colour, and if the bile exists in large quantity the coagulated albumen will accordingly assume a green, and then a reddish colour. In pursuing this mode of testing for the presence of bile, Heller recommends that to the suspected fluid, say urine, a considerable excess of strong nitric acid is to be added, and should there be produced by this means none of the ordinary colours indicative of the presence of bile, then that to another portion of the fluid some albumen dissolved in water (serum of blood, if

*Archiv. fur Physiol. und Pathol. Chemie and Microsc., Heft I.

at hand) is to be added, and well mixed; a little nitric acid is now to be poured into the mixture, which, after being stirred up, is to be left at rest for the albuminous precipitate to form: if bile be present, this precipitate of coagulated albumen presents a bluish or greenish-blue colour, but if it be not, then the coagulum is simply white (though, after a time, it assumes a yellowish tint, owing to the action of the nitric acid, but this is quite independent of the presence of bile). Thus, therefore, the simplest plan to detect bile in a non-albuminous fluid consists in making the fluid albuminous, and then treating it with nitric acid; should blood be the fluid requiring to be tested, nitric acid may be added at once to the serum, which contains albumen in abundance.

The microscope is capable of still further improving upon this mode of procedure, and of rendering this test applicable in cases where the suspected fluid is too small in quantity to be examined satisfactorily in an ordinary test-tube; for this purpose, Donné* recommends that a drop of a suspected fluid be placed between two slips of glass, and a little nitric acid added whilst the object is beneath the microscope; immediately upon the acid coming in contact with the fluid characteristic colours are struck, should bile be present. In this way Donné was enabled to determine that an abscess communicated with the intestine, by simply examining a drop of the pus discharged.—*Lond. Med. Gaz.*, Oct., 1845., in *Amer. Jour. of Med. Sciences.*

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3. *Mode of detecting Morbid Bile.*—In some diseases, however, as in cholera, &c., Dr. Heller has found that the colouring matter of bile may undergo a very considerable morbid change, in consequence of which, when treated with nitric acid, it assumes at once a red instead of a green colour. He has found that for bile which has undergone this change ammonia is a better and a more certain test than nitric acid, for although this latter reagent will detect it when in any abundance, yet it is apt to prove deceptive in cases where urine is the fluid undergoing examination, especially if much hæmatosine be present, which substance becomes more or less red by nitric acid. In using the ammonia test, a small quantity only should be at first dropped in, immediately upon doing which a bright red colour is struck; more of the ammonia may then be added until a reddish-brown fluid is obtained. In this way it is possible to detect the presence of a very minute quantity of altered bile pigment, even when nitric acid fails to afford the smallest evidence of its existence.—*Ibid.*

* Cours de Microscopie, page 212.

4. *On certain Pathological conditions of Milk as the cause of disease in Infants.—M. Albert Donné*, in his *Cours de Microscopie*, (Paris, 1844, page 412,) observes, "Our ignorance in the present day with regard to the characters of good and bad milk in nurses, and the mode of distinguishing that which possesses qualities requisite for the life and health of the child, from that which only affords to it an unwholesome kind of food, is so great, that it is almost impossible to find a practitioner, nurse, or even chemist, capable of giving an opinion whether a given specimen of milk be of good or bad quality. The indifference with which this important question is regarded, is no doubt in great measure attributable to the difficulty of the subject, to the insufficiency of the results which chemical analyses have hitherto afforded, and to the want of a proper method in the examination of this substance. We cannot in reality attribute it to any lack of interest, or to the trifling importance of the question, for there is perhaps none which in a higher degree concerns the public health, the happiness and welfare of families, or which more frequently presents itself for solution; and I have no hesitation in stating, that all which has hitherto been said and written on the subject of milk, so far at least as regards its peculiar qualities in relation to the nourishment of infants, is absolutely valueless. No one, certainly, is likely to be deceived by the colour, consistence, or even taste of milk; yet nothing can be more vague than are such characters; it is impossible to attach any real value to them; and since they are based on nothing positive, each person may interpret them as he pleases; consequently the attention of medical men is directed much rather to the general health of nurses than to the properties of their milk; and the examination of this secretion, if undertaken, is performed merely as a matter of form. Undoubtedly the general health is an indispensable condition, and one to which especial attention ought to be directed in the selection of a nurse; yet this condition is far from being the only one deserving of consideration, and it is well known that the best health is not always a guarantee for the good qualities of a nurse, or the nutritive properties of her milk; the lacteal secretion may be insufficient, or abnormal, in a woman otherwise perfectly healthy. Is it not a matter of daily observation, that one woman, although of a meagre sickly appearance, makes a better nurse than another woman of the healthiest aspect; and are we not frequently deceived as to the state of the constitution by external appearances? It is evident that the organs endowed with the function of secreting milk are, so to speak, placed too much without the general economy, to allow of the qualities of this secretion being estimated by the integrity of other organs and the regularity of other functions. It is in the milk itself, therefore, that we must search for the characters of its good and bad qualities;

and until we possess the means of observing its properties, and its good or bad nature in relation to the nourishment of infants, practice will be deprived of rule, the choice of nurses will be made in an empirical manner, and the determination of mothers who wish to suckle will more frequently be regulated by chance or caprice, than by reason, or with a due regard to the interest of their children." The subject has recently attracted the attention of M. Girard, who has furnished the following cases and observations. *(Archives Générales de Médecine*, June, 1845.*)*

Case I.—In September, 1840, a child, aged five months, was brought to me. I was informed that it was strong and vigorous when born, and that it was at once delivered to the charge of a nurse, who had been suckling for fourteen months. It shortly became uneasy, cried incessantly, and was only quiet when at the breast; it gradually grew thin, and diarrhœa was established, the stools being of a green colour. When brought to me it presented the following condition: Its face was thin and pale, tongue red, with a few scattered aphthous points; belly tense; there was a bright erythematous redness over the thighs and nates; there was frequent diarrhæa, the stools green; vomiting of curdled milk several times a day; the child slept badly, frequently awaking. This was the third time the child had been attacked with an almost similar set of symptoms, except that the aphthous spots now appeared for the first time, and the attack generally was more severe than the former ones, which had disappeared under the use of baths, starch injections, and abstinence from food; the diarrhœa, however, had continued. Baths, injections, gargles were now in vain made use of; the diarrhœa obstinately remained, and the aphthous spots increased. The nurse's milk was very alkaline; it was not examined microscopically. Since the child did not mend, it was determined to change its milk, and a nurse was engaged who had only been suckling for three months. The beneficial effects of this change were very marked; in two days the diarrhœa had considerably abated, and after a week all the symptoms finally disappeared.

Case II.—Madame S., aged 25, was on the 14th of November, 1844, delivered of her first child, a male, strong and well formed; she suckled this child for ten days, at which time her breasts becoming enlarged and painful, a nurse was engaged. This nurse was a middle-sized, dark-complexioned woman, about 30 years of age. She had no appearance of disease; her breasts were small; her milk was sweet, of good colour, consistence, and quantity, and about three weeks old. The child when delivered to her charge was in good condition, and its evacuations were healthy; but in a few days its sleep became disturbed; it grew thin; its stools became liquid, and very frequent, sometimes green, at others black; it had nausea

and vomiting; a bright redness extended over the thighs and nates, and the child became very restless. On the 3d of December it presented the follow appearances: emaciation extreme; skin dry and rough; diarrhœa frequent; stools green; the belly tense and painful; extensive erythema over the surface of the body; some vesicles on the scrotum; constant vomiting after taking the least quantity of liquid or milk; tongue red, and, as well as the mucous membrane lining the lips and cheeks, covered with numerous aphthous spots. I prescribed bran baths, water containing white of egg for drink, injections of linseed infusion with a drop of laudanum twice daily, and poultices to the abdomen. In spite of this treatment, however, the symptoms became more intense, the erythema extended, the aphthous spots became more confluent, ecthymatous pustules formed on the legs, the diarrhœa became more frequent, and the emaciation increased. This state of things continued until the 9th of December, when the nurse's milk was examined microscopically by M. Duforsé, and the following results obtained:—There was nothing peculiar in its colour; its consistence was that of milk containing much cream; treated with ammonia it became slightly viscous; it was neither acid nor alkaline. When a drop of this milk was examined with a microscope magnifying 300 diameters, it was observed, 1st, that the milk globules were in great abundance, such as is found to be the case in very rich milk; they were generally of a considerable size, and the largest resembled small bladders half filled with liquid, and collapsed. Instead of having a pearl-like brilliancy, most of them, especially the large ones, were of a dull white colour, somewhat resembling opal; some of them, aggregated together, formed small groups, which could be moved about in all directions, without a single globule being detached. When submitted to slight pressure, these several groups spread out so as to occupy a surface five or six times greater than they presented at first, and they assume various forms. The smallest quantity of sulphuric ether introduced between the plate of glass dissolved a large quantity of them very rapidly. 2d. The field of the microscope was beset with roundish granular particles, perfectly colourless, and presenting all the characters described by J. Henlé, Donné, Mandl, Güterbrok, and other micographers.

[To these particles Donné first applied the name of *corps granuleux*, and describes them as invariably existing in colostrum, but disappearing gradually as the milk becomes older; so that after about the twentieth day, and usually much sooner, not a trace of them is to be found. They differ from ordinary milk globules (with which they co-exist) in form, size, general aspect, and internal composition. They are not always globular, but present all possible varieties of form, and also of size, the smallest being about one-hundreth of a millimetre, the

largest many times this size; they are slightly transparent, usually of a yellowish colour, and of a granular aspect, appearing as if composed of a number of small granules aggregated together, or enclosed within a transparent envelop. Very often there exists in the centre or some other point of these little heaps a single globule, which is apparently nothing but a true milk globule imprisoned within the granular matter. The nature of these granular bodies is unknown; Donné supposes that they consist of fatty matter, and a peculiar mucous substance; they are not soluble in alkalies, but like true milk globules dissolve in ether, and after the evaporation of this reagent small heaps of acicular crystals remain on the glass. (*Cours de Microscopie*, par Alb. Donné, p. 400.) Although the existence of these granular bodies is commonly peculiar to colostrum alone, yet Donné (page 421), observes that they and the other peculiarities of the colostrum (as the large irregular size of the milk globules, which, instead of floating free, are agglomerated together in small masses), may persist for many months, or even to the end of suckling. The existence of this condition can only be discovered by the microscope, for the ordinary physical properties of milk, such as whiteness, consistence, and other characters, are preserved; and the nurse may continue in perfect health: the child, however, usually grows thin, although it is continually at the breast, and it commonly becomes attacked with diarrhœa. The milk in this case of M. Girard seems to have retained many of the characters peculiar to colostrum; he thus continues the narration of it:—]

The propriety of changing the nurse was now suggested and adopted: the milk of several was examined microscopically, and one selected whose milk appeared perfectly pure. This change had scarcely been effected two days, when the diarrhœa and vomiting diminished, and speedily ceased altogether; the aphthous spots disappeared, the tongue resumed its natural colour, and the erythema faded. From this time the child speedily recovered its good looks, and became fat, its stools being natural, and sleep good.

Case III.—Madame R., aged 28, was delivered of her seventh child in February, 1842; a male, strong, and well formed. One of her children had died when six months old from an affection characterized by ardent thirst, extreme emaciation diarrhœa, with green stools, and glairy vomiting. The present child took the breast readily, and was apparently in good health, yet vomited occasionally after suckling; the milk to all appearance was perfectly good. About the beginning of the second month the vomitings increased in frequency. Supposing that the child filled its stomach too full, the breast was given to it less frequently, and a little *eau sucrée* substituted, yet after each time of taking the breast it still vomited, though

it could retain other liquids; it soon grew thin and pale, and its bowels were alternately constipated and relaxed.

Towards the middle of the second month, the following symptoms suddenly occurred; the child screamed out, ceased to breathe, and became unconscious, its face and hands assuming a livid hue: this condition lasted for a few seconds, and then passed off spontaneously, leaving the child weak and faint for some hours. Within the next twenty days the child had many similar attacks, which came on at uncertain periods, both day and night, without any obvious cause; blisters, antispasmodics, and baths were employed, but without benefit. The vomiting still continued. The milk was now examined microscopically several times, at intervals of some days, and was found to present an enormous quantity of mucus without any other alteration. I informed the mother that it was essential the child should have other milk; this was repugnant to her, and she requested a few days' delay. Eight days afterwards, the vomitings having diminished, the milk was again examined, and presented a dimunition in the quantity of mucus; but it again increased after a few days, and with this increase the vomitings returned as before. The child continued to grow thin; a little diarrhœa showed itself, and the chest affection remained. The mother, now becoming alarmed, consented to employ a nurse: the milk of seven different women who successively offered themselves, although to all appearance good, presented beneath the microscope either mucus granular bodies, or other alterations; therefore they were rejected. At length one was obtained whose milk microscopically was perfectly pure. Two days after taking this milk the vomitings entirely ceased, so also did the symptoms of asthma, and neither of them ever reappeared; the child speedily became fat, strong, and well, and remains so to the present time.

At the conclusion of these cases, M. Girard remarks, that "without wishing to generalize too much, or to establish a theory from a few facts, is it not, however, logical to observe here a relation of cause and effect? What do we see in the second case? A severe and frequently fatal affection, which was rapidly on the increase, had resisted all rational means adopted for its removal, and which yielded with the greatest facility to a change in the milk with which the child was fed. We observe this disease to coincide with the ingestion of milk impure and of bad quality, and we witness its disappearance with a truly marvelous rapidity as soon as milk of good quality is administered. And in the third case, although the symptoms were somewhat different, yet we observe them to occur coincidently with the ingestion of impure milk, and to cease when milk of a pure quality is substituted. Is it unreasonable to conclude that certain severe pathological conditions may be

produced by alterations in the milk alone, and may be dissipated even when they have attained a very high degree, by a return to milk of good quality? It would be a point of much importance to ascertain whether these alterations in the condition of milk could at any time coincide with the maintenance of perfect health in the child; also it would be important to determine, if possible, whether a given alteration in milk most commonly or constantly induces such or such a pathological affection. Thus of the two cases last narrated we observe that in one a granular state of the milk induced an aphthous affection (the muguet), whilst in the other, a mucous condition gave rise to symptoms referable to the stomach and to the lungs; at any rate that these states were coincident with such affections. Of course it is not meant to be here implied that the pathology of infants is entirely under the influence of milk, but it seems probable that many hitherto inexplicable conditions may be so, and, moreover, that they might be explained by a simple examination of this liquid."—*Ibid.*

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5. *Turpentine in Purpura Hemorrhagica.*—The *Edinburgh Monthly Journal of Medical Science*, for December 1845, gives the history of two very interesting cases of purpura treated by large doses of turpentine. Dr. Neligan states that "it acts as a powerful cathartic, also possesses the property of checking hemorrhage, depending on an atonic state of the smaller blood-vessels, owing, probably, to its powers as a diffusible stimulant. In consequence of those views, I employed this remedy in four cases that afterwards came under my care while in charge of the district, and they all recovered. I prescribed the oil both in the form of draught and of enema; the usual dose for adults being from one ounce to an ounce and a half, and for children from two drachms to half an ounce, generally in combination with castor oil, to render its cathartic action more certain.

"Since that time I have employed oil of turpentine in every case of purpura which has been under my care, and its use has been invariably attended with beneficial results."—*N. Y. Jour. of Med. & Col. Sciences.*

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6. *"On the danger of using certain washes in cases of Ulceration of the Cornea.* By Dr. Cunier.—We have already directed the attention of practitioners to this matter, by pointing out the serious consequences which may ensue from indulging in the common practice of uniting laudanum with the metallic salts of lead, silver, zinc, copper, cadmium, &c., in preparing collyria. From such combination, says the skilful opthalmologist of Brussels, an insoluble meconate is precipitated, which, by the shaking of the wash when it is about to be used, may be brought into contact with the eye, and become incrusted

in the ulceration of the cornea. The result of some recent experiments instituted by Dr. Cunier, at the request of M. Boyer, established beyond doubt the fact, that this decomposition does in reality take place, and that accidents likely to arise from it are such as were previously indicated by the experiments. That, in fact, the precipitate formed by the addition of laudanum to washes made with the sulphates of zinc, copper and cadmium, is less abundant than in those made with the acetate of lead or nitrate of silver; nevertheless, in the quantity in which it is produced, it suffices to cause incrustations in the membrane, when used for ulcerations of the cornea.

"In concluding his article, Dr. Cunier indicates a very simple means for avoiding this difficulty. It consists in taking the precaution, when ordering these collyria, to combine the metallic salt with a salt of morphia *of the same acid;* for instance, the acetate of morphia with the metallic acetates; the sulphate of morphia with the metallic sulphates, &c., &c. In this way the same clinical result is obtained, without the patient being exposed to the serious consequences which may arise from incrustations."—*Gazette Médicale de Paris*, in *Ibid.*

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7. "*Treatment of Baldness and Falling out of the Hair.*—Dr. Wilson recommends for falling out and loosening of the hair, to immerse the head in cold water, morning and night, to dry the hair thoroughly, and then bursh the scalp until a warm glow is produced. In women with long hair, the scalp is to be brushed until redness and a warm glow are produced, then wet the roots of the hair with one of the following lotions: I. ℞. Vinegar of cantharides ℥ ss., Eau de Cologne ℥ ij., rose water ℥ j., M.; or II. Eau de Cologne ℥ij., tinct. cantharides ℥ ss., oil of nutmegs ℥ ss., ol. lavender, ten drops, M.; III. ℞. Mezerion bark ℥ j., horse-radish root ℥ j., boiling distilled vinegar, 0ss. Let it stand for a week and strain. If the lotion produce smarting or tenderness, the brush may be laid aside, but if no sensation is occasioned, the brushing should be resumed, and a second application of the lotion. This treatment should be practised once or twice a day, or at intervals of a few days, according to the state of the scalp; namely, if tender, less; if insensible, more frequently. The same treatment will prove successful in *baldness;* which, if it happen in patches, the skin should be well brushed with a soft tooth-brush, dipped in distilled vinegar, morning and evening. If either of the above lotions proves too irritating to the skin, use it in smaller quantity and less frequently. No. III. may be diluted with more distilled vinegar. Oil should be used to keep the skin soft and pliant."—*On Healthy Skin, p.* 257. in *Ibid.*

8. *On Abstinence from Drinks in the Treatment of some diseases.*—Dr. Bourge thinks that the quantity of drink administered in disease is not a matter of indifference, that it ought to be regulated by the medical attendant, and should not be left to the taste of the patient or the caprice of the nurse.

Thus, in all affections accompanied by a predominance of the serous or aqueous element in the blood, this physician thinks that we ought to diminish very much the usual quantity of drink, or even to suppress it altogether. Such are, for example, cases of dropsy, profuse sweatings, chlorosis, suffocative catarrh, abundant diarrhœas, diabetes, organic diseases of the heart, and, finally, asthma, whenever this malady owes its existence to a pathological condition of the central organ of the circulation.—*Dublin Hospital Gazette*, in *Boston Medical and Surgical Journal.*

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9. *Foreign Body in the Tongue for Thirty-two Years.*—A German soldier was wounded in the battle of Gross-Gorschen (2nd May, 1813) by a musket ball, which penetrated the left cheek, carrying away the four last molars of the upper jaw, and, passing through the tongue, made its exit through the left cheek, carrying away several teeth of the left side of the under jaw. The wounds healed in six weeks, and, except the loss of the teeth no other deformity remained but the cicatrix of the tongue, which did not impede his speaking or chewing. During the spring of the year, at which time the patient was subject to pulmonary and cerebral congestion, severe pains, with slight swelling of the tongue, came on, to which was added, in the year 1829, a small swelling of its right side, which suppurated and discharged thin matter, after which it gradually healed. On the 2d of May, 1845, a similar swelling made its appearance in the same place, which opened without discharging any matter, and after some days, what appeared to be a small piece of bone presented itself in the opening, which, on being removed, proved to be the second molar tooth, which had penetrated the tongue from the musket shot 32 years previously, and had during the whole time caused no great inconvenience. The roots of the tooth were broken off by the neck, and the whole surface covered by calcareous deposite.—*Oester Medecin. Wochenscrift*, in *Ibid.*

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10. *Diabetes Mellitus.*—Mr. Hodges, of Downpatrick, narrates the case of a girl, 17 years of age, laboring under diabetes mellitus, the result of a severe fall, in which he adopted, with apparent success, the nitrogenizing plan of treatment proposed by Dr. Barlow, in the Guy Hospital Reports, and also advised by M. Bouchardat. He prescribed the sesquicarbonate of ammonia in five grain doses every three hours, with coffee and bacon for breakfast, animal food and cruciferous

vegetables for dinner, and further directed friction of the skin, and warm flannel clothing. The poor girl, who at the date of this prescription, was passing twenty-four pints of urine of the density 1.030, in the day and night, speedily improved; the secretion of urine diminished in four days to fourteen pints, the specific gravity continuing the same. This again fell in a few more days to eight pints, and that soon after to five, still, however, of the specific gravity of 1.030. By the end of the month, the qantity of urine was about four pints in the twenty-four hours—pulse 80; tongue clean, appetite natural, and the girl said she never enjoyed such good health. The report about six weeks afterwards was that she had gained strength and color, and considered herself quite recovered. The effect of the nitrogenizing treatment in this case was well marked, and such as to warrant its adoption in other cases. In this instance the density of the urine continued very nearly the same, until the sweet taste had disappeared, when it was reduced to 1.020, and the secretion exhibited the color and smell of healthy urine.—*Boston Med. and Sur. Journal.*

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11. *Supposed Death.*—Mr. A. S. Taylor mentions the following extraordinary case:—In October, 1830, a servant girl, who had retired to bed in apparently perfect health, was found the following morning, as it was supposed, dead. A surgeon who was sent for pronounced her to be certainly dead, and that she had probably been so some hours. A coroner's inquest was summoned for four o'clock of the same day to inquire into the cause of death, and directions were given that a post-mortem inspection of the body should be made in the meantime. The reporter of the case was requested to give his assistance. Accompanied by the surgeon who had been consulted, he went to the house about two o'clock for the purpose of making the inspection. The deceased was found lying on the bed, in an easy posture, on her left side, her body forming somewhat of a semi-circle. The countenance was pallid, but so perfectly placid and composed as to give her the appearance of being in a deep sleep. The heat of the body, although she must have been dead eight or ten hours, was not in the least diminished. The room was carefully searched, but nothing in the shape of poison, nor any other means of self-destruction, could be discovered. Every article of apparel lay around as it might be supposed to have been left by a person going to bed in perfect health as usual. The heat of the body not diminishing a vein was opened, and various stimuli applied, but without producing any sign of resuscitation. The respiratory and circulatory processes had ceased; no artery could be felt pulsating. Two hours had now elapsed since their arrival, and the parties still hesitated to perform the inspection, when

a message was sent to them stating that the jury were waiting for their evidence. The inspection was then commenced, but on moving the body for the purpose, the warmth and pliancy of the limbs were such, as to give the examiners the idea that they were inspecting a living subject. The internal cavities were so warm that a very copious steam issued from them when they were laid open. All the viscera were healthy, there were no signs of disease; nothing appeared to account for death, and from what they saw the inspectors regretted that they had not postponed the examination until the signs of death had been completely manifested. For obvious reasons, the name of the place where this extraordinary case occurred, and the name of the reporter, were suppressed. He had evidently communicated the details in a fit of remorse for his precipitancy.—*Lond. Med. Gaz.* in *Med. News and Library.*

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12. *On the treatment of Scabies.*—Every practitioner has had occasion to lament that the best remedy for this disease is one of so disgusting a nature as sulphur ointment. The profession, therefore, will be glad to learn from the following communication from Mr. Stiff, that the sulphur may be dispensed with, and that the essential portion of the compound is the adipose matter. Mr. Stiff states, that during the last six months he has frequently tested the action of sulphur in scabies, and considers that it may be cured without it. The truth of this assertion is rendered more evident, he thinks, by looking into the nature of the disease, and by examining the anatomy of the animal. The acarus scabiei belongs to a class of insects which breathe by the tracheæ, and its respiration is therefore suspended by smearing its body with any oleaginous substance. It is in this manner, then, the sulphur ointment acts, according to the author, and not in virtue of any specific action of the sulphur. In proof of this, he affirms that he has cured more than forty cases by inunction with simple lard, unaided by any other treatment. The average duration of treatment was only a week.—*Med. Times*, July 26, 1845, in *St. Louis Med. and Surg. Journal.*

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13. *Distinctive characters of Remittent, Typhoid, and Typhus Fevers.* By Austin Flint, M.D.—Nosological classifications of fevers, and the nomenclature of this class of diseases, have been as mutable as the numerous theories respecting the intimate pathological perversions constituting the febrile state. *Inflammatory, putrid, adynamic, bilious, yellow, jail, nervous, malignant, petechial, congestive, ataxic, gastro-enterite,* and a host of other names have been at different times, and by different writers, employed to distinguish forms of this disease, their application being based upon circumstances ascertained

or imagined, appertaining to their origin, location, peculiar complications, or visible appearances. It is easy to raise objections to each of these appellations, and, indeed, so long as the essential pathology of the febrile state remains unknown, so long will any arrangement and nomenclature be liable to be overturned and rendered obsolete by the ever changing results of progressive, pathological investigations. The distinction between periodic and continued fevers, being founded on obvious facts, has been retained for a long time, and will probably be permanent; but the different varieties of the latter are still subjects of discussion, and the occasion for much difference of doctrine. The term *typhus* has been in use ever since the time of Hippocrates, to denote a variety of fever characterized by peculiar conditions of the mind and general powers, which are expressed in its etymology. From its appropriateness and long use, it is not probable that this term will be soon abandoned; moreover, modern investigations have shown that the variety of the disease which it is intended to express is very distinctively marked, not only by the cerebral symptoms and general prostration, but by other and peculiar phenomena. Heretofore its application was not so well defined as it is now. By Armstrong, whose writings until lately were deemed of the highest authority, its latitude was extended so as to embrace, by means of qualifying adjectives, a great proportion of the cases of continued fever. It has now become more limited, embracing only a variety distinguished by peculiar symptoms, attended by a constant exanthema, and especially involving, as its remote cause, (in addition to contagion or infection) concentrated animal effluvia. It is exceedingly rare that an opportunity presents itself for witnessing specimens of true Typhus in this locality. It has fallen under the writer's observation in two well marked instances, only, during the last ten years. In one of these it occurred in the family of an Irish emigrant, who had recently arrived in this country. One of three children had been affected and died with it on their passage. The other two were attacked on their arrival in this place. The other instance occurred at the alms house near this city in the winter of 1840-41. Four cases transpired there in quick succession, under circumstances which rendered it almost certain that the origin of the disease was due to the malaria engendered by close congregation of the inmates of the house in unventilated apartments. These cases were reported for the Boston Med. and Surg. Journal, June, 1841.

The term *typhoid*, as applied to distinguish a certain class of fevers, is of recent date, and is not recognized in this sense by all pathologists. It originated with Louis, of Paris, whose researches into the history and comparative phenomena of the fevers of the Parisian hospitals, may be said to have

created a new era for this department of pathological science, and will remain an imperishable monument of unsparing industry, and professional zeal. The investigations of this truth loving, talented pathologist, in themselves of great value, are still more valuable as furnishing a new point of departure, and giving impulse to a movement, which has enlisted the efforts of a multitude of co-laborers in different countries. Louis ascertained that the fevers of Paris were allied to each other by a certain uniformity of lesions, the most constant of which were disorganization of the glands of Peyer, and a softened condition of the spleen. The same disease, by those who believe it to be in fact a local affection, of which the febrile symptoms are symptomatic, has been entitled *Dothinenterite* or *follicular enteritis*. After these minute and comprehensive investigations in France, it became an interesting and important point of inquiry, in how far the same form of fever prevails in other countries. The attention of pathologists was soon directed to this point. In the British Islands it was found that in some of the cases of the, there so called, typhus fever, the descriptions of Louis were applicable, and in others they were not. Thence, it appears to be the prevailing opinion of British writers that the typhus and typhoid forms of fever are identical, but presented under different modifications. They do not generally acknowledge typhoid fever as a distinct form of the disease. In our country it has been ascertained by Jackson, Hale, Shattuck, and others of Boston, that the fever indigenous in New England, and known there as the common-continued, or autumnal fever, presents, in the phenomena before and after death, an entire similarity to the typhoid fever as portrayed by Louis. Gerhard, of Philadelphia, has also described a fever indigenous in that locality, identical with the typhoid; and, also, an epidemic typhus, which he traced to importation from England by means of English immigrants arriving there, in which the characteristic symptoms and lesions of typhoid fever were absent. He regards the two forms of fever as distinctly separable; and having had abundant opportunities to study the disease as it presents itself abroad and at home, his opinions are entitled to great consideration. Nevertheless, it is by no means regarded as settled by pathologists of this country, that the two forms of disease are intrinsically distinct. It is still a question *sub-judice* whether they are not one and the same disease, presented at different times and places under different modifications. While there is much weight of authority for the negative of this question, the numerical vote, we imagine, would be in favor of the affirmative.

We have extended these remarks farther than we intended when we commenced writing. Without entering into the controversial question just referred to, it had occurred to us

that it would be acceptable to our readers to present a brief synopsis of the distinctive characters appertaining to the forms of fever distinguished as TYPHUS and TYPHOID, and also those which belong to the common REMITTENT fever, as distinguished from both of the preceding. Whether we accept the doctrine which makes a specific distinction between the two forms, or that which regards them as varieties of the same species, there can be no doubt that the distinctions exist, and it is, to say the least, convenient to indicate this fact by different terms. The fever which generally prevails in this locality, is the common remittent, or, as it is miscalled, *bilious* fever. But there is reason to suppose that sporadic cases of typhoid fever occasionally occur, and we are liable, at any time, to meet with this or undoubted typhus in an epidemic form. Under these circumstances, it appears to us that there will be an advantage in having a synoptical view of these several forms of the disease which will admit of easy reference.

CHARACTERS DISTINGUISHING REMITTENT & TYPHOID FEVER.

Typhoid.—Access is gradual: a week or more with prodromic symptoms.

Remittent.—Access is generally sudden.

Typhoid.—Characterized by prostration and stupor ("typhoid symptoms") early in the disease.

Remittent.—The symptoms commonly called "typhoid," do not occur until quite late in the disease.

Typhoid.—Seldom a distinct chill, but only chilly sensations, which do not occur with periodicity.

Remittent.—Chills generally produced, and apt to recur several times with observance of periodicity.

Typhoid.—Diarrhœa one of the most constant symptoms; occurs early, and is apt to continue. Meteorism is generally present.

Remittent.—Diarrhœa only an occasional symptom. Meteorism of less frequent occurrence.

Typhoid.—Sordes of mouth, with low muttering delirium early in the disease.

Remittent.—These symptoms are not found until the latter part of the disease, and very often absent.

Typhoid.—Attacks, subjects, almost invariably, under 30 years of age.

Remittent.—Shows no such discrimination.

Typhoid.—Cough and Expectoration (Bronchitis) are generally prominent symptoms.

Remittent —Of much less frequency.

Typhoid.—Rose, or red spots *(taches rouges)* occur over abdomen and breast, from the 8th to 15th day.

Remittent.—Absent.

Typhoid.—Tongue is brown and dark.

Remittent.—Generally yellowish white. Nausea and vomiting are characteristic of its early stage; while they are less prominent, and often absent in typhoid. The conjunctiva is frequently yellow, and the urine impregnated with bile. The skin is apt to be yellow or sallow. These symptoms do not occur in typhoid. The mind, also, in remittents, is frequently unaffected; very rarely so in typhoid.

Typhoid.—Subsultus frequently present.

Remittent.—Rarely.

Typhoid.—Occurs rarely before November, sometimes in the latter part of October.

Remittent.—Occurs especially in August and September; unfrequent in October, and rarely afterward.

Typhoid.—Contagious and infectious.

Remittent.—No evidence that it is either.

Typhoid.—Presents after death disease of the Elliptical Plates, or Peyers glands, the mesenteric ganglions, and softening of spleen.

Remittent.—Spleen may be softened. The other lesions mentioned, rare. Stomach and Liver almost invariably evince disease. (Stewardson.) A fact which often enables us to confirm our diagnosis of remittent fever at its close, or after the case has terminated, is this: It is very apt to resolve itself into an intermittent form; and, in a very large proportion of cases, individuals who have had remittent fever, experience an attack of intermittent within a twelve month after their recovery. This fact may, also, serve to correct a diagnosis of typhoid fever if it has been incorrectly made.

CHARACTERS DISTINGUISHING TYPHUS AND TYPHOID FEVER.

The following is an abstract of the diagnostic symptoms distinguishing the two forms of fever above mentioned, presented by Dr. Gerhard, in his lecture on the subject, published in connection with the lectures of Dr. Graves, of Dublin. The descriptions are abbreviated as much as practicable. He classes the symptoms under four heads.

CEREBRAL AND NERVOUS SYMPTOMS.

Typhoid.—Loss of strength and prostration very early in the disease. Singing in ears, vertigo, epistaxis. Pains in head and limbs not so violent as in intermittent and remittent fevers. Chillness, but not defined chill. Brain symptoms increase slowly. Delirium rarely entirely wanting; sometimes only at night.

Typhus.—Stupor prominent from the first. Patient becomes comatose at an early period. Delirium always of the still, muttering kind.

OF THE SKIN.

Typhoid.—Rose spots fewer in number, often only six or

eight; rarely more than thirty; rather larger, elliptical, and more elevated.

Typhus.—Exanthema extends over the whole body. Papulæ are rounded, varying in size from an imperceptible point to breadth of a line. Occurs on the 3d day. May continue 12 or 14 days—generally only 5.

ABDOMINAL ORGANS.

Typhoid.—Diarrhœa after a few days, a frequent, but not invariable symptom. Meteorism, or abdominal pains generally present.

Typhus.—These symptoms are not present excepting as rare and accidental complications. Thirst more marked.

THORACIC SYMPTOMS.

Typhoid.—Some congestion of smaller bronchial tubes, which may pass into bronchitis, or pneumonitis.

Typhus.—Congestion different: apparently more dependent on the state of the blood, which obeys the laws of gravitation—the dependent part always full of blood. Pulse more frequent. Eye more dull, heavy, and blood-shot.

He states the following general circumstances:

Typhus spares no age; prevails as an epidemic, extending by contagion, or direct propagation from an infected individual.

Typhoid rarely assumes this character; rarely epidemic, and scarcely infectious, *excepting when prevailing epidemically.*

The medical physiognomy is very diagnostic, but difficult to be described.

To these it is to be added that the characteristic intestinal lesion of typhoid fever, or, to use the language of Louis, its anatomical character, while it is essential to constitute this disease, is an infrequent complication only in typhus.

In view of the acknowledged ability of Dr. Gerhard as a pathologist, his extensive and peculiar opportunities for clinical observation, and the fact that he has advocated the doctrine of an essential distinction between these two forms of fever, it seems fair to conclude that he would submit as strong a contrast of diagnostic symptoms as will comport with a rigid adherence to an exact description of phenomena. The practical reader will perhaps be enabled, from the preceding comparison, to form an opinion whether the antithetic characters are sufficient to constitute a radical distinction, or whether they are not of so kindred a nature as to denote the same disease under somewhat different aspects. For our own part we incline to the latter view, although we admit that the circumstances indicated, enable the practitioner to determine in most cases, without much trouble, whether the disease be more appropriately—agreeably to this classification—called typhus or typhoid; and that it is convenient and useful to make the distinction. In short, while all must acknowledge

that they are in nearness of kin,—cousin-germans—we are disposed to regard them as even more closely allied to each other, being, if not one and the same individual, at least pathological twin-brothers.—*Buff. Med. Jour.*, January, 1846.

November, 1845.

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14. *On the efficacy of Cold Astringent Injections into the cavity of the Uterus in arresting Uterine Hæmorrhage.* By L. G. Ray, M. D., of Paris, Ky.—At the commencement of our practice, having failed, in some cases, to arrest this fearful malady, we were induced to resort to a remedy, which, though novel in its application, seemed peculiarly fitted to meet the indications of cure, by arresting *instantly* the flow of blood. It is simple, easily applied, and *most efficacious* in its results, and hence should command the attention of the profession. We cannot better illustrate its effects than by giving a case.

Mrs. F——, æt. 43, had menstruated regularly when not pregnant, missed two periods, and was inclined to the opinion that she was again pregnant. Was attacked with uterine hæmorrhage, which soon became alarming. We saw her six hours after her attack; found her with feeble, frequent (uncountable) pulse, anxious countenance, hurried respiration, extremities and whole surface cold, covered with a dripping and cold perspiration, partial syncope taking place at every movement she made, without pain, os tincæ soft and relaxed as also the body, hæmorrhage still progressing. In this state of things we used, instanter, a saturated solution of sub. acet. plumb. in acetic acid, cold; which we threw into the cavity of uterus by a curved pipe womb syringe; pain of a sharp character instantly ensued, followed by a sudden contraction of uterus, and *entire arrest* of the alarming hæmorrhage. Brandy, with a little tr. opi., internally, frictions to surface, and sinapism, to extremities, restored heat and comfort, in a short time to the almost dying lady. Six hours after use of injection, found her comfortable, cheerful, pulse a little more frequent than natural. No return of hæmorrhage.* Ordered an occasional aperient, and rest. Mur. tr. ferri, in doses of 30 drops thrice daily; a little brandy at meals, with generous diet. This lady recovered her usual health and vigor in a few weeks without any bad effects from the use of injection.

This practice we have followed for the last fifteen years, in alarming cases of uterine hæmorrhage, without any unpleasant consequences following, and with the *most complete and perfect success.* We have used it in hæmorrhages following and accompanying abortion, and from retained placenta, with equal success,—and we have no doubt it may be safely and suc-

* In this case, it must be borne in mind that brandy, laudanum, and various other remedies had been used before we arrived, without one particle of relief.

cessfully used in all cases of uterine hæmorrhage accompanied with a relaxed and atonic state of the organ.

Since writing out this case, we have used the remedy in a case of engorged uterus with some tenderness, accompanied with uncontrollable hæmorrhage; and although it succeeded in arresting the hæmorrhage, it caused our patient most intense pain, which was only relieved by two tea-spoonsful of acet. tr. opium, with a ½ grain suph. morphia. After this, she had a speedy recovery.

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15. *Dr. Lee's objections to the practice of extracting the Placenta in cases of unavoidable Uterine Hemorrhage.*—In the first case of placental presentation which came under my observation, a great gush of blood suddenly took place from the uterus, and the woman was dead before she could be seen by any practitioner. In at least twenty other cases which I have since witnessed, the first attack of hemorrhage was so sudden and profuse as to endanger life, and in several reduced the patients to a condition which rendered recovery impossible, though the most prompt and energetic treatment was employed. In all these cases the blood could not have escaped from the mother through the medium of the placenta, but from the mouths of the great veins left open in the lining membrane of the uterus by the detachment of the placenta, in consequence of which a direct communication was established between the cavity of the uterus and the cavities of the heart. If the whole mass of maternal blood contained in the cellular or cavernous structure of the placenta had flowed out in a moment, it would not have amounted to one-hundredth part of the blood which escaped from the uterus in the space of a few minutes in these cases. The cellular or cancerous structure of the placenta, which resembles a sponge, renders it impossible that any gush of blood could have taken place from the partially exposed decidual veins on the surface of the organ even if these were not constructed, as they are, like valves, and close immediately on the separation of the placental decidua from the uterus. The peculiar structure of the placenta favors the coagulation of the blood in its cells, when any portion of it is detached in the same way as hemorrhage is arrested in cut vessels by blood effused into the cellular membrane around the vessel. The cavernous structure of the portion of detached placenta is consequently invariably found to be filled with coagulated blood, and the orifices of the decidual veins covered with coagula. But the manner in which the maternal blood enters the placenta demonstrates that the great torrents of maternal blood which suddenly rush from the uterus in cases of unavoidable hemorrhage, do not proceed from the placenta, but from the vessels opened in the lining membrane of the uterus, as all the most distinguished practitioners

in midwifery believe. The small curling arteries in the placental decidua, which convey the whole of the maternal blood that enters the placenta, could not possibly replenish the organ for a very considerable period if the maternal blood were entirely to escape in a few seconds from the exposed decidual veins. The fœtus would also invariably perish in cases of placental presentation, after the first attack of hemorrhage, if this were the fact, which is known to be quite the reverse.—*Medical Gazette.*

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16. *Death from inoculation with matter from an ulcer succeeding the vaccine vesicle.*—On the fourteenth day from vaccination, when there was no vaccine matter present, but a foul secretion, this fluid was taken by needles, and inserted into the arms of two children by their mother or some one present. The operation was performed on the 29th of Sept. at 8½ o'clock, A. M. At 8 o'clock P. M., both were taken ill suddenly, with much restlessness and great heat, the same symptoms in both. At 10 o'clock P. M., symptoms somewhat worse; but the parents thinking they would soon be better, no medical aid was called until 2 o'clock at night, fourteen hours after vaccination, as they termed it, when the infant, 18 months old, became convulsed. Dr. Allen, of this city, being near, was called in. Spasms continuing, at 8 o'clock, Sept. 30th, I met Dr. A., and we continued in attendance till 10½ o'clock, when it expired, twenty-six hours after inoculation. The virus corroded through the true skin in this short period, and arm swollen.

The other child, about four years old, continued very sick; arm swollen, red and painful, with a white ulcer, evidently extended through the true skin. There was no vaccine vesicle or scab, or anything like it, formed on the arm. The ulcer continued to discharge until about the 10th of January, 1846; and on the 19th of January, the last scab fell off, leaving an unsound appearance, and a hardness in the cellular membrane beneath. It is evident that a virulent poison was introduced into the arms of these children. DANIEL MOWE.

Lowell, Feb. 5, 1846. [*Boston Med. and Surg. Jour.*

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17. *Vaccine Aphorisms.*—Some very excellent observations have recently appeared in the N. Hampshire Patriot, on the value of vaccination and the signs by which its perfect condition and protective influence may be known. The article was one that would have been creditable to any practitioner, and should, therefore, have had its place in a medical journal, where it would have been seen by five hundred practitioners where it is now noticed by one. The concluding aphorisms so entirely meet our individual views, that we have transferred them to our own pages—regretting, at the same time, that

it is impossible to give credit for them to the close observer from whom they emanated, as he has concealed his name under the no-meaning signature of T.

1. A "scar" of the cowpox, having all the characteristic marks, and perfectly distinct, is not to be relied upon as an evidence of certain protection, unless proved by revaccination.

2. *Complete* vaccination forever secures an immunity to the individual from infection of the smallpox, varioloid, and from specific effects of cowpox.

3. In primary successful vaccinations, there is little evidence of the operation of the virus, before the fifth or 6th day, while in subsequent vaccinations, if the first be *complete*, there is speedy inflammation and itching, and the whole disappears at about the time the first should distinctly appear.

4. The most rigid scrutiny is requisite in the selection of matter, that it be collected at the right period of the vesicle, and from individuals of robust health, free from any cutaneous or other disorders, and of these conditions the physician is the only competent judge.

5. Cutaneous diseases (as perhaps visceral and other disorders,) seriously modify the character of the genuine vaccine affection, both as it regards the purity of the virus, for transferring the disease, and also the degree of security afforded the vaccinated, in consequence of impaired susceptibility.

6. *Re-vaccinate in all cases*, and repeat the operation so long as it specifically affects the system.

TO READERS AND CORRESPONDENTS.

We have received:—Lectures on the Nature and Treatment of Deformities. By R. W. Tamplin, F. R. C. L. E. In Select Medical Library. Edited by John Bell, M.D. (From the Publishers.)

Essay on the Philosophy of Vitality as contra-distinguished from Chemical and Mechanical Philosophy, and of the Modus Operandi of Remedial Agents. By Martyn Paine, M. D., Professor of the Institutes of Medicine and Materia Medica in the University of New York, &c. (From the Author.)

New Elements of Operative Surgery. By Alfred A. L. M. Velpeau. Translated by P. S. Townsend, M. D. Under the supervision of Dr. Mott. Vol. II.

Transactions of the Medical Society of the State of New York. Vol. VI, Part 3.

A defence of the Medical Profession of the United States. By Martyn Paine, A. M., M. D., Professor, &c. (From the Author.)

Anniversary Address to the New York Medical and Surgical Society, January 3d, 1846. By F. Campbell Stewart, M. D.

Catalogue of Jefferson Medical College; Session 1845-6.

J. & H. G. Langley's Medical Catalogue for 1846.

Boston Medical and Surgical Journal to April 15th. (In Exchange.)

New York Journal of Medicine and the Collateral Sciences to March, 1846. (In Exchange.)

The American Journal of Insanity, for April, 1846. (In Exchange.)

The American Journal and Library of Dental Science, for March, 1846. (In Exchange.)

The Medical News and Library, to April, 1846. (In Exchange.)

The Western Journal of Medicine and Surgery, to April, 1846. (In Exchange.)

The Journal of Health and Monthly Miscellany, for April, 1846. (In Exchange.)

The Medical Examiner, to January, 1846. (In Exchange.)

Southern Medical and Surgical Journal, to April, 1846. (In Exchange.)

The Bulletin of Medical Science, to April, 1846. (In Exchange.)

The Buffalo Medical Journal, to April, 1846. (In Exchange.)

The Western Lancet, to February, 1846. (In Exchange.)

The Missouri Medical and Surgical Journal, to March, 1846. (In Exchange.)

The St. Louis Medical and Surgical Journal, to April, 1846. (In Exchange.)

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